Digitized by the Internet Archive
in 2012 with funding from
LYRASIS Members and Sloan Foundation

http://archive.org/details/missionssonoraca00unse

361

TUMACACORI NATL. MONUMENT
BOX 67
TUMACACORI, ARIZ. 85640

A BRIEF REPORT ON THE HISTORICAL AND ARCHEOLOGICAL ASPECTS OF THE MISSIONS OF NORTHERN SONORA

Arthur Woodward

1935

Reprint Box
Mission Churches
Pimeria Alta

TABLE OF CONTENTS

Introduction

The Missions of Sonora and Arizona 1

San Ignacio de Caborica 7

Santiago de Cocospera 20

Santa Maria Magdalena 39

Titar 42

San Antonio de Oquitoa 45

San Francisco de Ati 48

Nuestra Senora de la Concepcion de Caborca 53

San Diego del Pitiquito 62

San Juan del Bisanig 62

San Pedro y San Pablo de Tubutama 66

Nuestra Senora de los Dolores 72

Los Santos Reyes de Sonoita 77

Summary and Recommendations 80

Bibliography

A BRIEF REPORT ON THE HISTORICAL AND ARCHEOLOGICAL ASPECTS OF THE MISSIONS OF NORTHERN SONORA

Made October 12-29, 1935.

Submitted by: Arthur Woodward
Associate Laboratory Technician
E.C.W.

NATIONAL PARK SERVICE
Field Division of Education
Berkeley, California
1935

A BRIEF REPORT ON THE

HISTORICAL AND ARCHEOLOGICAL ASPECTS

OF THE

MISSIONS OF NORTHERN SONORA

Made October 15-29, 1935.

Submitted by: Arthur Woodward
Associate Laboratory Technician
U.S.N.

NATIONAL PARK SERVICE
Field Division of Education
Berkeley, California
1935

TABLE OF CONTENTS

Introduction

The Missions of Sonora and Arizona 1

San Ignacio de Caborica 7

Santiago de Cocospera 20

Santa Maria Magdalena 39

Altar 42

San Antonio de Oquitoa 45

San Francisco de Ati 48

Nuestra Senora de la Concepcion de Caborca 53

San Diego del Pitiquito 58

San Juan del Bisanig 62

San Pedro Y San Pablo de Tubutama 65

Nuestra Senora de los Dolores 72

Los Santos Reyes de Sucurpe 77

Summary and Recommendations 80

Bibliography

Introduction
The History of Modern Art 1
The Impact of Industry 7
Realism in Literature 15
Early Movie Industry 22
Light 31
The Painting of Light 41
The Problem of Light 51
Electric Energy in the Composition 59
The Power and Intensity 68
The Use and Control 74
The Color of Pure Light 82
Bright Colors in Clothing 90
Conclusion 97
Bibliography

LIST OF FIGURES

I. Sketch of test excavations made by Sr. Davila of Magdalena, Sonora, in search of Padre Kino's Tomb.

II. Chests of this type were commonly used in all of the Spanish colonial settlements from Texas to California

III. Ebony and silver cross at San Ignacio.

IV. Ground plan of Cocospera.

V. "Miraculous image of San Francisco which is worshipped in Magdalena, Sonora." See text p. 40. This was probably the image so tenderly cherished by Padre Kino.

VI (a). Ground plan of Altar church.

VI (b). "Old church of Altar which was in service until the year 1886."

VII. Tanate or rawhide sack.

VIII. Copper utensil from Oquitoa Mission.

IX. Details of ornamentation - late 18th century Mexican-Spanish sword blade.

X. Ground plan of Atil.

XI. Ground plan of Santa Teresa.

XII. Wooden chest in Pitiquito.

XIII. Cupboard at Pitiquito.

XIV. Ground plan of the mission of Bisanig.

XV. Detail of window at Tubutama.

XVI. Cupboard at Tubutama.

XVII. Detail of wrought iron picture hanger at Tubutama.

XVIII. Detail of choir loft railing, Tubutama.

List of Figures

INTRODUCTION

The primary object of the Sonora expedition was to obtain rchitectural and historic data which might furnish studies for the ossible restoration of portions of the Tumacacori National Mon- ment, one of the Kino missions chain, and to enable the artects nd museum technicians to make more accurate exhibits for the new useum projected for Tumacacori.

The work of assembling the various data was apportioned among he members of the party as follows: Architectural studies by effler Miller and Schofield Delong (the latter was elected chief f the party) and assisted by Howard Tovrea, engineer attached to he Southwestern Monuments headquarters and Robert Rose, Park Nat- ralist likewise from Southwestern Monuments headquarters; George rant, official photographer of the National Park Service, and rthur Woodward, archeologist-historian and interpreter.

Two cars were used, one belonging to the Branch of Plans and esign in San Francisco and the other operated by George Grant who arried the luggage.

Owing to rumors of trouble in the region in which we wished to ork it was deemed necessary to proceed to Hermosillo to obtain an fficial permit from the Governor of the State. This proved to be a isw move.

There was some unrest in the region of Magdalena, Santa Ana and ltar. The presidente and the chief of police of Santa Ana were eized and shot early in the morning of October 13 (the day we arrived t Hermosillo). Immediately we heard stories of other atrocities but side from the shooting affair in Santa Ana no other fatalities ccurred in the region in which we worked. We were all through the isaf ected area, but were unhindered in our work and received only he most courteous treatment from the officials and townspeople.

Detachments of the 16th Infantry and the 26th Cavalry of the ederal Army were on duty in Hermosillo, Nogales, Magdalena, Santa na, and later at Altar. Owing to the unrest in these towns, the ecretary of the Governor (the later being out of town) suggested hat for the peace of all concerned we remain in Hermosillo for a ay or so until the troops could take control of the towns and restore rder. Not being cognizant of the true state of affairs, and wishing o abide by the wishes of the government, we concluded to do so. On he morning of the 16 the secretary wrote out a permiso for us and rmed with this we left Hermosillo for Magdalena, which city we lanned to use as a base of operations for a survey of Missions San gnacio, Cocospera and Magdalena.

In describing our operations at the various missions I shall imit muself to a discussion of the condition of the missions at the resent time, giving only a resume of the historic settings and aking them in the order in which we approached them. I shall not ttempt a detailed description of the architectural features leaving

that to the members of the party who were directly concerned with such work. Only in such places where I deem it necessary to point out possible reconstruction in connection with historic events and the evidence substantiating such reconstruction shall I attempt any discussion of such features.

To obtain a proper perspective on the problems of the Sonora missions and their architecture it is necessary to call attention to fundamental historical, archaeological, and ethnological facts. It is not my intention to delve deeply into the various phases of the historical background of missionary work in Sonora and Arizona. Such a study would demand too much time and the result would be a series of volumes rather than a report.

On the other hand a certain amount of explanation of certain factors is deemed necessary. I shall limit myself to a brief exposition of the Indians of the region involved and a general review of events which took place in the founding of the missions under discussion and something of the subsequent history of the mission establishments after their cession to the Franciscans by the Jesuits.

Unfortunately, our knowledge of the Franciscan occupation of Sonora and Arizona is rather meagre. No doubt there are reams of original documents touching upon this subject but we have very little that has been complied with any degree of authority.

Concerning the actual construction of the mission proper, and the periods in which they were built, our information is practically nil. Only in a few places do we obtain first hand glimpses of the structures as they were being made ready for occupancy. Our knowledge must be gleaned from scattered references and from later observations by travelers. It is believed that this combined report will serve as the first technical or semi-technical discussion of the architectural phases of construction of these missions. A few years ago Mr. Prentice Duell wrote an article "The Arizona-Sonora Chain of Missions" for the publication The Architect and Engineer, July-December, 1921, San Francisco, and more recently Dr. Frank C. Lockwood published his "Story of the Spanish Missions of the Middle Southwest," Santa Ana, California, 1934. The latter is more in the nature of a guide book indicating where these missions are located and how to reach them. Duell's report is more to the point, but he omits features desirable in such a record.

We realize that in this present report much has been left out, many questions remain unanswered, all of which is to be expected when one considers that we remained in Mexico only from October 12 to October 29, and aside from making the roughest of measurements and sketches, were unable to excavate or otherwise thoroughly explore the mounded ruins for the evidences necessary to make unqualified statements.

No accurate account of this mission chain will ever be written until the trowel and brush of the historical archeologist lays bare the old floors and walls, and examines the crumbling debris on the mission sites proper to make a thorough intelligent reconnaissance of the native Indian sites in the region.

It is not my intention to dwell at length upon the ethnology of the Indians of the region, This has been done by several authors, the last compilation having been made by Dr. Ralph Beals under the heading "Material Culture of the Pima, Papago and Western Apache" Which was issued as a mimeographed publication of the Field Division of Education, Berkeley, California in 1934. However, one or two points should be mentioned in connection with the native inhabitants which have not been previously considered.

Scattered throughout the Altar, Magdalena and San Miguel valleys are numerous hills upon which occur small terraced places supported by stone walls. These are known as "trincheras". Upon these small platforms which cling to the steep slopes overlooking fertile agricultural flats, Indians once built their homes. I do not believe these natives have been accurately identified with any one of the present tribes. However, from the types of the pottery which exist on such trincheras and also on the sites of the missions proper, there seems some reason to believe that possibly these places were occupied during mission times and supplied neophytes to Oquitoa, Santa Teresa, Imuris, San Ignacio, Tubutama, Dolores, and perhaps others. A small type collection of sherds bearing a purplish micaceous paint, identified as "Trincheras ware" and commonly thought of as being associated with the trincheras proper was brought back from the missions mentioned.

Any future research into the mission problem in Sonora should include a brief survey of certain of the trincheras which are found in closest association with the missions. One such site is on the low hill directly across from Oquitoa.

The reason for stressing the native population of Sonora in connection with the mission chain is obvious. No mission was ever constructed in a land barren of Indians. The missions existed by, and for the Indians. No mission could have been erected without Indian labor, no fields tilled without neophytes, and the large herds of horses, mules, cattle and sheep would have gone untended without the aid of native herders. It was the wild enemy tribes of the Apache and rebellious Pima who rose against the missions. For these reasons the Indian should play a major part in the story and we should have as much information concerning him as it is humanly possible to obtain in order to complete our understanding of the missions and their problems.

As Dr. Ralph Beals so aptly states "Perhaps no region of North America is so little known to the anthropologist as northern Mexico between the American border and a line drawn from the mouth of the Rio Panuco to the southern boundary of Jalisco" (The Comparative Ethnology of Northern Mexico before 1750", Beals, Ralph L., U of C, 1932.)

However, in considering the native population in this report it will not be necessary to include the territory south of the Altar river, nor east of the Rio San Miguel.

In the main, the tribes centering around the missions of the Pimeria Alta or the Upper Pima country consisted of the Pima, Papago and the northernmost division of the Opata on the Rio San Miguel.

Usually the Pima and Papago are considered the same stock with but minor variations in material culture and dialetic differences in language. Concerning the latter it may be mentioned that in southern Arizona, south of the present town of Casa Grande, in a rather narrow strip of territory dividing the area claimed by the present day Pima and Papago lives a small group of people known as theCojate or Quahadike. These people have been noticed from the earliest times as a separate unit, yet when one examines the truth of the matter it becomes only too apparent that the Cojate are composed of the Pima-Papago stock, as a Pima expressed it "they are half and half people". Pima man he marry Papago woman, they live there. Papago man marry Pima girl, they live there. They Cojate."

In other words, the linguistic differences and the feeling between the two tribes have been sufficient to create a separate division. Then, too, there are minor differences in the material culture such as basketry, some pottery, household utensils and ceremonies. To what extent these differences existed in early historic or late pre-historic times it is difficult to state.

In Sonora proper the Papago now inhabit the territory which was termed the Pimeria in mission days. This is particularly true of the district west of the Altar river. The lands surrounding San Xavier del Bac from which Kino drew his workmen for his missions of Cocospera and Remedios were then Pima. Today they are Papago territory. Early writers have divided the Pima-Papago on linguistics and material culture differences, maintaining that the Papago were lower in the cultural scale. Whether this was actually true is difficult to determine. The Pima call themselves A-a-tam meaning simply "the people". Papago means "bean-people" and is derived from the words "papah" (beans) and "OOtam" (people). In the latter work is seen the resemblance to A-a-tam the true name of the Pima. (Handbook of the American Indian, Hodge, F. W. v.2, pp. 200 and 251.)

THE MISSIONS OF SONORA AND ARIZONA

Although the chain of missions established by Father Francisco Eusebio Kino are those with which we are directly concerned it may be well to mention that actual missionary work in Sonora proper began in 1613 when Father Mendez and a companion visited the Mayo Indians and began to administer to them.

By 1636 the missionary frontier of Sonora was pushed up the Sonora valley and a mission founded in the vicinity of Ures in 1639. Father Bartolome Castano was the first resident missionary (The Pima Uprising 1751-1752, thesis by Charles Russell Ewing, University of California, May, 1934, pp. 22-23.)

The Jesuits were the first in this field but in 1640 or 1641 Governor Luis Cestin de Canoa supplanted Capitan Pedro de Perea as the Governor of Sinaloa and almost immediately quarrels rose between the two concerning the limits of the respective territories they were to govern. Capitan Perea was given jurisdiction over the territory north of the Yaqui river which he named Nueva Andalucia and which was later known as the province of Sonora. He established his capital at San Juan Bautista. Perea was unable to get along with the Jesuits in his territory and he attempted to replace them with Franciscans, especially in the Sonora valley. Here for a short time five Franciscans under Superior Juan Saurez were scattered in the country claimed by Jesuits.

Then the Franciscans and Jesuits clashed. The Jesuit Visitor of Sonora, PedroPantoja protested and sent Father Geronimo de la Canal to the viceroy with a letter of complaint. Pending settlement of this dispute Perea attempted to send Franciscans into the Pimeria Alta(the territory in which we are interested) but the Indians proved hostile and Perea was forced to abandon the project. (Ewing, p. 25.)

Capitan Perea died October 4, 1644, and shortly afterward the Franciscans were ordered out of the region by the authorities, leaving the Jesuits in undisputed possession of that missionary field. Thus, little by little the Spanish frontier was pushed further north into the Sonora valley and by the middle of the 17th century missions were established as far north as Cucurpe and Arispe.

In March, 1687, Father Kino arrived in Pimeria Alta to begin his missionary labors which were to continue without interruption for 24 years during which time he founded the chain of missions with which we are concerned. He founded his first mission, that of N.S. de Dolores some 15 miles above Cucurpe, then the northern-most mission outpost on the valley of the Dolores river which joins that of the San Miguel below the site of the mission some few miles. This first mission was on the site of the Indian village of Cosari. (Bolton, Herbert, Memoir of Pimeria Alta, Eusebio Francisco Kino, S.J. V. 1, pp.51-52.)

On March14, 1687, Kino in company with Father Joseph de Aguilar, visited and founded San Ygnacio de Caborica, second mission in his series. Kino died at Magdalena at the house of Father Agustin Campos after celebrating the dedication mass of the new chapel at Magdalena. By this time, 1711, Magdalena had graduated from a visita of San Ignacio to a church more important than the latter place and was the residence of Father Campos.

THE MISSIONS OF ARIZONA &

Although there has been some dispute over the actual resting place of Father Kino, all evidence seems to point rather definitely to the chapel in Magdalena as the place of entombment.

Dr. Bolton in his "Memoir of Pimeria Alta" v.1, p.84, states: "His remains are now resting at San Ignacio, another of his establishments." However, Dr. Bolton has assured me that since that was written he has other evidence which points to Magdalena as the resting place of this great pioneer missionary. Lockwood (Story of the Spanish Missions of the Middle Southwest, Santa Ana, Calif.,1934,p.41) states: "The greatest and undying distinction of Santa Maria Magdalena is that Father Kino, on March 15, 1711, died there in the house of Father Campos and was buried in the chapel of San Francisco Xavier." All local tradition in Magdalena certainly upholds the latter theory and many efforts have been made by interested residents of that city, especially Don Serapio Davila who, in 1930, excavated in front of the present church (which was constructed and possibly finished in 1833) seeking Kino's tomb. Sr. Davila has collected the reminiscences of many old men and women who remembered the ruins of Kino's church, the one he dedicated when stricken in 1711.

The building was apparently in a fair state of preservation in 1864 when J. Ross Browne visited Sonora and incorporated his impressions verbally in his "Adventures in the Apache Country" which he published in 1869. His view of Magdalena shows the old chapel and the newer church in the relative positions indicated by the foundations walls of the ancient capilla visible today in the street and the imposing cathedral finished in 1833.

According to Sr. Davilla, the remnant of the bell tower and other portions of the older structure were torn down in 1881 and the stones used in paving the streets and sidewalks of Magdalena. This effacement of the old ruin occured about the time the railroad was built. Attached is a rude sketch map indicating the trenches dug by Davila and the supposed location of the chapel in which Kino was buried, which, according to all observations by Davila, must be under the site of the present Casa Municipal. Since the front of the old capilla fronted east northeast, the altar at the side of which Kino was probably interred would be under the southwest end of the municipal bldg.

After Kino's death the work continued to be carried on by the Jesuits for more than half a century. In 1751-52 the great Pima revolt occurred which brought death and destruction to the missions. In 1767, according to Engelhardt, the Masonic government of Spain brought about the expulsion of the Jesuits. However, even prior to this time, the Indians at the missions had begun to show less inclination for priestly control. The unrest in Pimeria Alta continued to be reflected in the actions of the neophytes.

In 1767 the guardian of the Franciscan missionary college of Santa Cruz at Queretaro, under orders of the Viceroy La Croix selected 14 missionaries to proceed from Jalisco into the area from which the Jesuits had been expelled. These men assembled Aug. 5, 1767, at the chapel for a final mass and blessing before setting out on their northward journey. Part of these men were destined for Baja Calif. Others were distributed among the missions of Pimeria Alta and Pimeria Alta.

In 1768 the Franciscans of Queretaro accepted the missions in Pimeria Alta in which we are most interested.

San Ignacio with the mission stations, Santa Maria Magdalena and San Jose de Himuris, was first occupied by Fr. Diego Garcia, 1768-1772.

San Pedro y San Pablode Tubutama with the visita Santa Teresa was put under the charge of the Father President Buena in 1768.

San Francisco de Ati with the pueblo of San Antonio Oquitoa as a visita, besides two other stations near the Presidio of Altar was in the care of Fr. Jose Solar in 1768. At that time there was said to be no church at Oquitoa and the one at Ati was a small and poor structure.

La Purisima Concepcion de Caborca with San Antonio Pitiqui and N.S. de Populo or San Juan de Bisanig was given over to Fr. Juan Diaz, 1768-1776. There was neither church nor house for the priest at Pitiqui.

Santos Angeles de Guevavi with three visitas, San Jose de Tumacacori San Cayetano de Calabazas and San Ignacio de Sonoitac came under the direction of Fr. Juan Gil de Bernave in 1768. There was no church at Calabasas and the others were described as poor. At Tumacacori were some adobe houses and walls for defense.

San Xavier del Bac with the visita or presidio of San Jose de Tucson became the residence of Fr. Francisco Garces in 1768.

In 1772 Fr. Antonio Reyes, one of the Sonora missionaries then in the city of Mexico compiled a report on the condition of the missions in both Pimerias. The entire district was then under the jurisdiction of the Bishop of Durango. This work was entitled " Noticia del Estado Actual de las Missiones que en la Gubernacion de Sonora Administran los Padres del Colegio de Propaganda Fide de la Santa Cruz de Queretaro por el Fray Antonio de las Reyes."

I shall not include the descriptions of the various mission establishments as given by Reyes at this time. Mention of the conditions of the missions will be given in their proper places. On the whole the documentary sourses are some what disappointing. No doubt there are many accounts which may give us more detailed information concerning the actual construction of these missionsestablishments but so far they have not been given much publicity.

SAN IGNACIO DE CABORICA

Although this is the second of the Kino Missions, it was the first church visited by the National Park Service party. We arrived at Magdalena in the afternoon of October 16, and proceeded to San Ignacio the same afternoon.

San Ignacio de Caborica is situated on the east bank of the Magdalena river, nine miles north of Magdalena. To reach this mission from the main highway one turns off on a side road about 6.7 miles north of Magdalena taking the road that veers northwest. The church looms up from a distance and affords a very pretty picture. As with all of the churches the location was chosen with an eye for fertile fields and a center of Indian population. At the time of our visit Sra. Leonor R. Diaz, a fine looking Mexican woman who owns a small store in the Villa of San Ignacio, was custodian of the church. We arrived rather late in the afternoon and had no opportunit to do actual work other than make a brief survey of the grounds.

On the morning of the 17 we arrived at 9:30 and after presenting our credentials to Sr. Hilario G. Nunez, the comandante de policia and obtaining the services of Sra. Diaz we began active work. It must be remembered that in practically all cases the churches visited do not represent the structures actually built by Kino and his workers.

In June, 1699, Kino was at San Ignacio, but at that time no elaborate church structure existed. Church was held in the house of the priest for as Kino remarked when he received a letter at this place, "I read it at the altar of Our Father San Ygnacio (which is in the hall because there is no church as yet) for in it was the lighted candle, and I received the letter in question after nightfall." (Memoir of the Pimeria Alta, v.1, p. 201.)

Apparently this priest's house had not been rebuilt after 1695 for in May of that year the Indians raided the mission of San Ignacio, San Joseph de los Hymires (the Imuris of today), Santa Maria Magdalena and La Concepcion de Caborca, and burned the "houses or chapels."

Oddly enough, Kino does not mention any details of church or house construction at San Ignacio. As a matter of fact with one or two exceptions (Dolores and Cocospera) Kino is strangely silent on the subject of the actual building of his missions. It may be that the mundane problems of house and church construction were so prosaic and taken for granted that the eminent missionary did not consider the details worthwhile.

To those of us interested in reconstructing the physical aspects of the past, in making those places wherein the pioneers labored, lived and died, relive in all their glory the memoirs of Kino and the Franciscans who succeeded the Jesuits in that field are relatively useless.

As a matter of fact, the church, although it was the largest building at any one mission site was not the mission proper. Too

[illegible]

often we are likely to see the church that remains as the main feature of the mission. Physically, of course, it dominated the scene and naturally it was the spiritual heart of the mission but in the outlying buildings surrounding the chapel pulsed the life blood of the station. Usually the church had a convento or priest's quarters, kitchens, store rooms, etc. attached to it in the form of a square with a patio in the center. At times attached to this headquarters unit, if we so term it, were the rooms occupied by the native major domo, keepers of the granaries, etc., and nearby were the rows of smaller structures in which the more devoted neophytes lived. Generally the bulk of the converts lived nearby, sometimes in adobe houses, more often in the less substantial but more primitive wattle-and-dau b or thatched shacks. Then there were the array of blacksmith shops, loom rooms, milling rooms, store rooms for agricultural implements, etc. The number of shops and living quarters depended upon the number of neophytes and their ability or willingness to perform the tasks allotted to them, and likewise upon the ability of their priestly teachers.

So, at San Ignacio we find the church building the now dominant feature of the landscape, but if we examine the terrain in the immediate vicinity we note many interesting features. The church building is itself rather simple. The interior is not elaborately decorated. As with all of the churches which were in any fair state of preservati the altar furnishings, pictures, images, etc., had been removed by order of the Federal Government in December, 1934. In some cases, as at San Ignacio, the church furniture has been placed in one of the rooms in the church, usually the sacristy or the baptistry and therewith placed under lock and key, the latter being held by local custodian or else the door is sealed with one or two typed and stamped slips of paper which serve as official government seals.

Since it is not my intention to decribe the architectural features of the building, I shall not attempt any such details, leaving them fo Messrs. Miller and DeLong.

We found a paucity of old furnishings in all the missions. Even before the closing of the buildings in 1934 many of the interesting items must have been carried away, either by the Mexicans themselves, or by tourists willing to pay the price, or in some instances stolen outright without payment.

In the baptistery was an unpainted wooden chest distinctly 18th century in character, with the original elaborate iron lock scutcheon plate and hasp intact, Fig. II. This chest was 42 inches long, 20 inches high and 21 7/16 inches wide. The corners were mortised together, and a simple interlocking circle decoration adorned the ends of the front of the box. In this chest were many fine old silk brocade and satin vestments, likewise of the mid-18th century and possibly one or two that may have been used even earlier. Here also in the baptistery were a number of old images of San Jose (who formerly occupied a niche of the east side of the nave) and opposite him was San Francisco, as well as several other saints. When John R. Bartlett visited San Ignacio in 1851, he mentioned the fact that two of the images were made over from wooden statues of Chinese mandarin figures. (Lockwood, p. 39). If such was the case those two images have disappeared. All that we saw were old, original images, and not one that even remotely resembled Chinese workmanship. There were also a number of oil paintings of various sizes, some of fair workmanship in the baptistry all pertaining to religious subjects.

In one corner stood a baptismal font of carved stone containing a copper basin and cover bearing a floral pattern in repousse. This font was 35inches high, the stone basin 27½ inches in diameter while the copper lining, which was a separate peice and removable, was 20" in diameter and 7" deep. This was a handsome peice of copper work, the best we saw in any of the churches.

In the baptistry proper were several places on the floor, and the eastern and northern wall which had been recently repaired. Inquiry concerning these patches divulged the fact that in 1932 a man approache Mrs. Diaz representing himself as being a government employee sent out to repair certain cracks that had appeared in the baptistry walls. Accordingly she permitted him to carry in his tools, cement and mixing va and then left him to do his work. However, his actions and his secrecy about his work made her suspicious. She went to the church official in the Magdalena and learned that no order for such work had been given. in the meantime the "workman" returned the key to her and departed. She entered the sacristy and discovered that the man had been an impost er, merely another treasure seeker, and instead of repairing the place he had excavated large holes in the side of the room and at the foot of the baptismal font, seeking the ever elusive gold and silver supposed t have been buried by the padres. The entire floor of the sacristy was replaced in 1914 after treasure hunters had torn it up. These same vandals also haunted the church at night and dug under the main altar. The worked at the right of the main altar and concealed their operations behind a sheet which they hung in front of them and also moved the large statue of the virgin to cover their movements. New adobe bricks replaced the ones which were dug up at that time.

Continueing on the theme of treasure hunters, it may be said here that in all the mission buildings and around the mounded remains surrounding the chapels men seeking tesoro (treasure), have literally honey-combed the earth. One cannot walk around the enviroms of the main structures without skirting one of these holes and in some instances they are wide and deep.

In the sacristy of San Ignacio is a huge paneled chest of drawers, evidently made in the 18th century. This chest occupies the entire north side of the room, and although several of the drawers are missing and others are minus the iron handles and bottoms, the majority of the compartments, all of these are intact. A number of odds and ends of church furniture were stored in these drawers. Among the better item were two small painted animal figures carved out of wood. These were painted a dark brown and were apparently the work of neophytes and may well have dated to the latter part of the 17th or early decades of the 18th century.

Here also was an ebony and silver crucifix apparently an altar piece. This stood 29½ inches high, the cross arms had a spread of 18¼ inches. The upright of the cross was 1½ inches wide and ½ inch thick. It was decorated from top to botton with thin, silver ornaments in repousse tacked to the wood. (Fig. III).

In one of the drawers was a cast bronze cricifix apparently meant to be carried at the end of a long staff in the processional. This was 21 inches long and had a spread of 10½ inches. It was a very neat piece of work. Here, too, were small wood and plaster images, parts of the decorations of the two side altars. There are in poor condition, some having the arms, legs and faces missing. Of course, the vandalism is laid to American tourists, and probably with good reason.

The side altars which at one time were fine examples of 18th century reccoco work in plaster, gilt and paint have been dismantled and portions of them are scattered through the sacristy and the trancepts. The wood is slowly disintegrating and the various parts are broken and chipped.

Resting among the tarnished frogments of the side altar was a rusty U.S.Harpers Ferry rifle, model of 1831. It had formerly been a flintlock, but was altered to percussion. The lock was missing the nipple broken, and the ramrod gone. I learned that at one time there had been five or six old firearms in this church, including a flintlock or two, but these had been stolen. I heard that one of the latter type weapons was even then in possession of a Mexican living in town but did not get to see it.

An interesting feature of decoration of this church is the words "San Ygnacio" in large moulded letters standing out in bold relief on the inner curve of the rounded arch of the main entrance. These words cannot be seen from the outside.

One old chair remains. This is of the type known as the "frailero" and was in general use not only in Sonora missions during the 18th century, but also in those of Alta California. A similar chair is in Mission San Miguel in California; I believe another is in San Luis Rey, and yet another of the same type is in the Los Angeles museum. Such chairs are entirely of wood, mortised and pegged together. A detailed sketch was made by Mr. Miller. The chair was used by the priest in the old confessional which stands in the nave of the church. This is probably contemporary with the chair. At least it gives every evidence of having been made at the same time.

In the bell tower hangs five bells. Atone time eight bells hung there. Of the five I was able to read the inscriptions on the three largest ones. Those hanging in the north and south arches are cracked and useless. Judging by the workmanship they were cast locally.

On a bell in the south arch is a cricifix in block pattern and the inscription in block letters, "Beato Ioborio Ano De MDCCCXXIII."

On a bell in the north arch is this inscription in a peculiar combination of block and script letters: "ANO DE 1813, EN JULIO XX D A CONCEUPCION."

The bell hanging on the east side of the tower has this inscription, "YGNACIO D 1818."

It was not feasible to climb to the upper portion of the tower, the platform being rotten and no ladder available. From this tower is obtained a beautiful view of the valley to the south, west, and north. In the river lowlands immediately west of the mission are the lush growths of modern Mexican gardens planted on the very site of the old Mission gardens and orchards. I was informed by Jesus Leiva, lessee of the ranch, who has lived here for the past forty-eight years, that formerly an adobe wall had enclosed the old orchard which extended up and down the river bed for a distance of one and one half kilometers.

In the environs of the garden may be seen the patriarch of all orange trees in the Magdalena valley. It is 24" in diameter at the base and is approximately 20' high and has a spread of some 27'. It is grey with age and it seems very likely that this is one of the original trees planted by the padres, whether Jesuit or Franciscan it is difficult to say. The tree continues to bear a profusion of extremely sour oranges.

Here also may be seen thick, untrimmed rows of membrilla (quince and granada (pomegranate) trees heavy with fruit at the time of our visit (Oct. 17). There are also stray fig trees lost in the tangled undergrowth and further down the valley there are said to be old pear trees which were also inside the adobe walls of the ancient huerta. Along this rich bottom land where the present occupant now raises his crops of sugar cane, chile peppers, beans, etc.,which give him a rather slender income, about 200 pesos a year according to current prices, which are very low, the missionaries raised their foodstuffs. Here grew in profusion the squash, garlic, corn, beans, wheat, onions and peppers that supplied the fathers and their faithful workers.This was the garden of the mission proper. According to the system, the Indians who labored on a share plan drew their sustenance from the storehouses while those who preferred to work their own fields were not entitled to a free distribution of such produce.

Although we know from the records of Father Reyes,in 1772 San Ignacio had a church well furnished, with three alters, which corresponds to the structure standing today, and had the house of the padre adjoining the chapel. However, it would be difficult, with this meagr evidence, to give any details of the establishment.

At present, there are extensive ruins of an adobe quadrangle wes of the church. Here without doubt stood the residence of the fathers. The buildings were probably low one-story affairs, possible higher in some instances, surrounding a aptio. This collection of habitations, storerooms, and workshops, kitchen,etc., was usually known as the convento or dormitorio. The Mexicans today use this term when speaking of such ruins. The church proper is usually referred to by the modern Mexicans as the "capilla" or"templo". Iglesia is understood bu not used as much as these other terms. It seems that iglesia refers t the modern churches. Iglesia vieja or iglesia antigua likewise broug results but capilla antigua or templo antiguo.were better phrases when inquiring about the buildings.

It is impossible at the present time to obtain an adequate picture of the complete mission establishment and the various outlying structures or the periods in which they were built, without some excavation properly conducted.

North of the church were additional buildings, the ruins of which may yet be traced. Others have been obliterated by the settlers in the neighborhood.

The campo santo, or cemetery was east of the church. A rubble wall, some seven feet high and twenty-one inches thick, formerly enclosed this burial place. The east wall of the church formed a wall cemetery. In this wall were four or five oval niches in which skulls formerly reposed. This custom of decorating the cemetery enclosures with death's heads either by means of actual skulls or sculptured representations of them was not uncommon. The outer walls of the cemetery, like most of the outlying structural features have tumbled down and are mere heaps of mounded rubble. One rather old and imposing tomb in which two or three bodies have been placed had a small aperature near the ground at one end. This had been made recently and through this opening the desicated head of the body was visible and fragments of the winding shroud had been drawn forth by curious children of the town.

In the center of the patio on the west side of the church a deep hole indicated the efforts of treasure hunters to locate some definite object. According to Mrs. Diaz, an attempt had been made at that point to uncover the well which was supposed to have been dug to supply the friars drinking water. Mrs. Diaz asserted her grandfather had lived at the mission when it was a going concern. Legend had it that one of the padres at that time kept the proceeds of the sale of cattle, sheep, horses, etc.,in a large chest which he had under the bed. This box was said to be filled with golden onzas (a certain type of coin). One morning, according to the story, when her grandfather returned to the convento, after being away over night at the direction of the priest, the chest was missing and the well had been filled to the brim with earth and rubble. The priest, too, had disappeared. This gave rise to the legend that the priest had buried the chest in the well, gone off to attend some other affairs and failed to return. Since that time many have sought to uncover the well, but to date none has been successful. Similarly a story of a concealed tunnel entrance in the center of the nave of the chapel gives rise to other stories of tesoro. This tunnel, as with all tunnels (and nearly every mission was supposed to have one) is said to have gone off toward the river, to be used as an avenue of escape by the padres when the mission was attacke by Apaches. Here in this tunnel are buried the gold and silver church vessels. Few Mexicans will admit believing the actual existence of the treasures or tunnels, and laugh at the attempts of those who have dug fruitlessly for them, but will just as readily agree that there might be a chance that they really exist and if given the opportunity would dig just as fervently for them.

Scattered around the outside of the church among the mounded walls and fallen stones are potsherds of plain reddish brown ware, and some of the peculiar Trincheras ware. The latter is common on all of the mission sites visited, save perhaps Bisani where the pottery seems to be straight Pima- apago. I mention this fact in that it may give us a clue to the tribal identities of the neophytes who once lived there.

Early references speak of the Pima language being used by the Indians at San Ignacio, and since this mission was in Pima-Papago territory it is quite likely that people of these tribes were the servants at the mission. However, there are some puzzles presented in the face of archaeological evidence at all of the sites which will need more careful field research before we can safely interpret the blanket tribal denominations of the early padres for this northern area of Sonora.

Evidence of the activities of the mission, aside from farming, were found in the presence of two well-made tanning vats outside the west wall of the quadrangle. At present these vats, tow of which are sufficiently exposed to be measured, are within a few feet of an irrigation ditch which winds along the gentle slope of the hill just above the river bad. The tanks are of different sizes and are constructed of cobble stones and lime mortar. The walls are 18" thick, well plastered on the inside, and the largest of the two is 19' long, 8' wide and from 5 to 6 feet deep. The smaller one is in the best condition, although it has a small section out of one side. This vat is 5' 10" long, 26" wide, and 33" deep. No doubt further excavations on the hillside would expose other interesting features whereby a better idea of the activities of the mission could be learned.

Our work at the mission was aided by Mrs. Diaz, the custodian, who not only unlocked the doors for us, but also gave us information as she possessed concerning recent repairs to the roof, walls and floors. Another resident of the pueblo who aided in moving objects about to be photographed and who also helped in obtaining the inscription of the bells was Sr. Juan P. Buen, originally a native of Barcelo who settled in this town several years ago. He was agreeable, willing worker, and seems to know the region in the vicinity of San Ignacio quite well, and would probably be valuable as a guide.

SANTIAGO DE COCOSPERA

On October 18 we left Magdalena at 9:30 a.m. enroute for Cocospera We arrived at the mission site at 12:20 p.m. and began work.

The road to Cocospera leads through a wild and beautiful canyon through which flows a branch of the Magdalena river. We crossed and recrossed this stream fifty-six times on the round trip between the mission and Magdalena.

To reach this mission from the latter town one drives north on the main highway to a cross-road marked "CRUCERO"(cross-road or junction in Spanish) a short distance beyond the end of the cemetery fence on the outskirts of Imuris. This will be the first sign of this sort beyond the cemetery. Take the right hand fork at this junction and continue northeast, keeping always on the best traveled highway. This mission is thirty-seven miles from Magdalena and is on the west side of the road as one proceeds up the valley.

In 1864 J. Ross Browne visited Cocospera and drew a sketch of the canyon through which the road passes for some distance. However, the pictures drawn by Browne are for the most part exaggerated to such a degree that they cannot be trusted for details. His Cocospera canyon is so drawn as to give the wrong impression and we could not recognize with any certainty the spot represented in his sketch. Similarly his views of the missions Cocospera, Tumacacori, etc. are not only badly drawn but are inaccurate. The sketch of Tumacacori indicates a row of buildings in line with the facade to the west which never existed. Similarly at Cocospera his terrain is not correct and details of the towers have been left out.

The mission site is on the crest of the old river terrace which slopes rather abruptly to the stream bed, which at this point broadens out into a wide valley. Here in the fertile flats modern Mexican ranchers have their fields, and with very little imagination or exaggeration one may easily vision the aspect of the landscape as it was when the mission was in its prime, with herds of cattle and sheep browsing in the pasturelands and fields of corn, wheat, melons, squash, etc. growing luxuriantly in the rich loam of the flood plains with the river marked by heavy verdant growth of cottonwood and willow.

Cocospera, like the famed Topsy of "Uncle Tom's Cabin" - 'just grew'. The date of the actualfoundation of the church seems a bit hazy. Kino was there in 1689, 1691 and probably many times not mentioned.

In April, 1697, Father Ruis de Contreras became a resident priest. At that time, according to Kino, the mission was equipped with complete vestments or supplies for saying mass, good beginnings of a church and a house partly furnished, 500 cattle, almost as many sheep and goats, two droves of mares, a drove or horses, oxen, crops, etc. (Memoirs of Pimeria Alta, v.1, p. 166.)

In March, 1701 Kino went to Cocospera "to cast a glance at my other two pueblos of Nuestra Senora de los Remedios and Cocoppera because they were frontiers to the enemy and to provide for their defense by means of some towers..." (Memoirs, p. 274, v. 1.).

The master director of all these mission outposts was at Cocospera again in April, 1701, on his return south after visiting San Xavier del Bac. A church and house were being built at Cocospera at this time by Kino's orders and he paused here two days to supervise and direct the work. (Memoirs, pp. 292-293, v. 1.)

During 1703 work on a large church building at Cocospera was continued "zealously" in February, March, April and part of May with the expeption of being able to have it finished and dedicated before the end of the year. The work was done mainly by Pima Indians imported from the neighborhood of San Xavier del Bac. The essential details of this construction are best told by Kino himself:

"I ordered the necessary wood cut for the pine framework, sills, flooring, etc. I went to the interior and brought more than $700 worth of clothing, tools, and heavy ware and from other places I obtained more than $3000 worth of goods, provisions and cattle of the three rich districts. I invited some men from the frontier for work on these new buildings and there came far and away more than I asked for; and very especially for entire months the many inhabitants of the great pueblo of San Francisco Xavier del Bac which is sixty leagues distant to the north, worked and built on the three pueblos of this place and of my administration. In this way many adobes were made in the two pueblos of N.S. de los Remedios and Santiago de Cocospera; and high and strong walls were made for two large and good churches, with their two spacious chapels, which form trancepts, with good and pleasing arches. The timbers were brought from the neighboring mountains and pineries, and the two good buildings were roofed and provided with cupolas, small lanterns, etc. I managed x almost of the year to go nearly every week through the three pueblos, looking after both spiritual and temporal things, and the rebuilding of the two above mentioned new churches." (Memoir, v.1. p. 379)

The laborers on the church at Cocospera were paid in corn, wheat, cattle, clothing, cloth of various sorts, blankets, etc. "which are the currency that best serves in these new lands for the laborers, master carpenters, constables, military commanders, capitans and fiscals."(Id. p. 378)

In another place Kino refers to the wood used saying: "Timbers for the frames and flooring which are very good and almost all of pine called royal, were cut and brought from the neighboring hills a distance of seven or eight leagues." (Memoir v.2, p. 80)

A few additional data concerning Cocospera are included in Kino's relation "of the month of January, 1704, in which occurred the solemn dedication of two new and capacious churches."

"The churches of N.S.de los Remedios and N.S.del Pilar y Santiago de Cocospera, as all who have seen them say, are among the best in all the provinces of Sonora, Sinaloa, Hiaqui and Chinipas. They both have trancepts, formed by two good chapels, with their arches. One of the two chapels of N.S.de los Remedios is dedicated to our father San Ygnacio and the other to the glorious Apostle of the Indies, San Francisco Xavier. Each church has on the arches of the two chapels which form the trancept a high cupola, and each cupola has in the middle and above a sightly lantern". (Memoir, v.2, p. 86)

The master director of all these mission outposts was at Cocospera again in April, 1701, on his return south after visiting San Xavier del Bac. A church and house were being build at Cocospera at this time by Kino's orders and he paused here two days to supervise and direct the work

The new year of 1704 was ushered in by cold, raw winds and chilly weather, sickness prevailed, yet in spite of all this a large concours of Spanish gente de razon, visiting priests and a host of natives from all parts of Pimeria Alta were at Cocospera on Jan. 18-19-20 to participate in the dedication of the new church. Here were Yuma Indians fro the far away Colorado river bearing gifts of the famous blue shells which led Kino to argue for a passage by land to California. Here also were people from "The nations of the Quiquimas, Cutganes, and Coanopas etc., nations on the land route to California." (Id. p. 87.)

"The dedication ceremonies were performed by Father Rector Adamo Gi and other fathers, with all the ceremonies and benedictions which our Holy Mother Church commands to the holy Roman ritual. The choir from Remedios aided Father Gilg in the singing of the two principal masses. The dedication sermon was preached in Pima by Gilg. (Id.pp.86-87.)

Such are the actual records by Kino of the building of a church at Cocospera.

In July, 1730, a Jesuit priest published an account "Estado de la Provincia de Sonora, etc." which was reprinted in"Documentos Para la Historia de Mexico"pp. 617-637, Tercera Serie, Mex. 1856. He mentions the church at Cocospera as being in a ruined state.

On February 26, 1698, the Apaches, Sumas, Janos and Jocomes, attac Cocospera "at a time when the pueblo was without men, for they had gon inland to barter maize; and although one of the enemy was left dead, t killed two Indian women, sacked the pueblo, burned it, the church, and also the house of the father, who was defended by the few natives who had remained. The enemy carried off some horses and all the small sto and retired to the hills. A few from Cocospera followed him but when he saw them coming he ambushed them and killed nine of them." In this instance Kino seems a bit inconcistent in his description of the attac He states "the pueblo was without men" then mentions the defense of th father by"thefew natives who had remeined" and finally of the pursuit by a"few from Cocospera" of whom nine were slain.

Apparently at this time some sort of a church structure had been built at Cocospera at that time, However, on the afternoon of April,17 Kino again visited Cocospera "where we were received by 150 natives wh had just returned to settle this pueblo, and had just rebuilt and roof a hall and a lodge for the father's house, with orders soon to roof th little church also, for three years before on the twenty-fifth of Feb. 1697 (this should read 1698) the hostile Hojomes and Janos had sacked and burned this pueblo . . . "

Forty-eight years later, in 1746, the mission was again burned. Th was twenty-one years before the Franciscans took over the Jesuit churc In 1768 the Apaches attacked the Mission Santa Maria Suamca and Fr. Francisco Roche transferred the neophytes to Cocospera, which,at that time was a visita of Suamca. (Englehardt, 183.) The following year,176 according to Bancroft (North Mex. States, v.1,p.689) Cocospera suffere from an Indian attack.

It is difficult to determine just what the various writers meant b the burning or destruction of a mission. Judging by all evidences pre-sented at the sites themselves, and our knowledge of Apache warfare, i is difficult to conceive the destruction of any fair sized building built either of adobe, burned brick, or rubble masonry. Likewise, it i difficult to interpret the records concerning the repairs made to the buildings at different periods. Similarly one is at a loss to decide how to interpret the statements concerning the erection of "new" churches. The details of such construction are so meagre that th

mere citing of work/done is relatively valueless when arriving at a decision concerning the types or numbers of structures that are supposed to have occupied one site. Cocospera is no exception. There are a few scattered references in Kino's Memoir concerning the constructio of the Jesuit church at this place.

On Feb. 16, 1746, Indians burned the church, then a visita of Sant Maria Soamca (Descripcion Geografica Natural y Curiosa de la Prov. de Sonora, por un amigo del Servicio de Dios y del Rey Nuestro Senor. Ano de 1746 .. .. Docs. p. Hist. de Mexico, p. 607).

Apparently this was the original Kino church. We have no mention of its total destruction, nor is there evidence on the ground today th the fine structure described by Kino was ever demolished. One must regard the words "burned" and "destroyed" in connection with the mission as mere descriptive phrases which are not all-inclusive in every sense of the word.

In the case of the earlier buildings which in all likeness were mere ramshackle huts built on the usual Indian style of either brush ramadas, or wattle-and-daub houses or possibly small adobes, they coul be destroyed very easily by Indian raiders. However, when one consider the later type edifices, built substantially of adobe, rubble, or ston with high walls over forty inches thick and with sturdy stone buttress the Apaches who came in with a swoop, lingered a few hours and went ou again, may have burned the roofs and destroyed the portable property o the church but these Indians were not equipped to level such relativel huge buildings.

An examination of almost any of the mission sites today contains proof of this assertion. The enemies of the mission establishments were time and the elements, and the white settlers of the region.

A roofless structure of adobe usually tends to disintegrate fairly quickly; on the other hand uncovered buildings may stand for years wit out appreciable deterioration, or at least no dissolution that may not be repaired fairly readily with a few courses of new adobes and a roof of ~~timarr~~ timber, brush or earth.

The ruins of the missions in question, as well as those in California, and elsewhere, are visible proofs of this statement.

When treasure hunters ans settlers desiring roof timbers, stones, door or window frames, floor tiles, etc. begin ~~in~~ active operations in and around such buildings, then the destruction is very soon consumate

At Cocospera we made a survey of the buildings to determine some o these very points. Records stated the building was"burned" in 1746. Th present structure is in a poor state of preservation but it is due to the activities of modern human vandals rather than Apache raiders.

We know the church and grounds were actively used until almost the middle of the 19th century. It is said to have been abandoned abou 1845. Browne spoke of it being a "Ruined old church". Owing to his inaccuracy in making sketches of such places, it is difficult to determine how badly it was ruined.

Thirteen years before he came to Cocospera, J.R.Bartlett stopped there, September 30, 1851. His description indicates it was in a fair state of preservation with wall and ceilings intact, decorations clear and complete and even some altar furnishings left; towers and domes in good condition.

We found the church in a very ruinous state. The outside is a facing of burned brick. In places this veneer has pulled away from the inner wall and by a careful examination of all breaks, inside and out, we made some rather interesting discoveries and deductions. It is

presumed that the fine finish on the outside and the excellent gypsum plaster finish of the interior, the bell towers, and the butresses, are of Franciscan origin.

Attached is a rough sketch map indicating the main essentials of the ground plan of the mission establishment, Fig.IV. This is merely a sketch and is not drawn to scale. Lack of time forbade extensive examination or detailed measurements of outlying buildings, walls, etc.

Seemingly this has happened at Cocospera - - - Kino's original church was of adobe. His two chapels as mentioned formed the trancept. The interior finish was simply an adobe plaster, made smooth and hard and coated with a thin layer of whitewash upon which were applied designs in red, grey-blue and yellow. There were three simple windows in each side nearly four by six feet. These were guarded by wooden gratin consisting of seven or nine wooden bars about two inches square set transversely in vertical position. Heavy wooden shutters swung inward, thus protecting the church at those weak points. These windows were seemingly not centered opposite each other. The roof was probably flat save at the chapels which were no doubt vaulted or domed. As with most of the early roofs this was no doubt composed of the pine vigas or beams which in turn were covered with poles, grass and earth. Such roo need constant attention. The walls of this church were of adobe brick and were 42" thick in front and rear and some 53" thick on the sides and approximately 25' high. The latter figure is problematical; the thickness of the walls is definitely known.

In 1746 the Apaches probably set fire to the roof and caused the abandonment of the mission for the time being. It seems doubtful that the Jesuits made repairs at Cocospera after this. If they did they mus have been very meagre. That is, if we are to continue to base our belief in the Franciscan origin of the present structure.

About 22 years later the Franciscans took over Cocospera which is a visita of Santa Maria Suamca. Apparently they built the present structure. However, this is what occurred, according to the evidence presented by the building itself. The Franciscans finding the heavy adobe shell of the Jesuit building xxxxxxxx in sound condition simply built their church inside, and outside the original structure, adding to the side walls another six inches of adobe and burned brick outside and some 47" inches of burned brick, adobe and fine hard thick gypsum plaster to the interior. They put a false front of burned brick and adobe on the church, added two bell towers, put on a barrel-vaulted roof and completely changed the aspect of the building. They likewise added a tile roof and probably installed the present choir loft.

They found the beams which had been charred by the fire of 1746 still sound, and instead of discarding theme, they frugally saved them and reused them as sills and lintels in the new church.

I found direct evidence of this in a door of the new structure on the east side which I pointed out to Messrs. Delong and Miller. I also discovered the major evicence of the old church construction on the exterior of the west side where part of a wall at the later building had sloughed away exposing a complete window in the older structure which the Franciscanx workmen had not bothered to fill when they put their veneer of adobe and burned brick inside the Jesuit walls.

To revert to the question of reutilization of Jesuit timbers - - Opening off from the apse on the east side of the main altar is a door which gave upon a series of rooms constructed along the outer wall of the Franciscan structure. Here I found a lintel, the upper side of which was charred, the under side being untouched. The Franciscans had scored the under side and then coated it with a fine, eggshell finish gypsum plaster which they used throughout this church.

All exposed woodwork inside the building, even the nicely carved corbels of the beams upholding the choir loft had been thus scored and covered. These beams were of mesquite and were of varying sizes, 9"x9" 8"x8", 7"x7",etc. These beams were socketed in mortar and burned tile. The floor of the loft was of mortar 2" thick and at the sides near the walls was reinforced with fragments of curved roof tiles set in the hard gypsum plaster. The carving of all the corbels was done with a narrow gouge or channeled chisel. The greater portion of the roof has collapsed save a section over the choir loft and the dome over the main latar. The latter portion of the church bears the only remnants of a once brilliant array of decorative motifs of flowers, grapes, bananas, and huge vases in plaster relief filled with sprays of pomegranates. Vandals have chiseled away one of the vases, for what purpose it is difficult to imagine unless they were searching for the eternal tesoro. Other fragments of decorated plaster bearing the faces of little angelitos have been deliberately cut out. This appears to be the murderous work of tourists, Americans probably, this breed seems to be the most destructive. Obscene pictures and the usual array of foolish names have further destroyed the beauty of the primitive art.

However, it is not my intention to linger on these details. Color sketches of some of the more pronounced features were made by Miller and Tovrea while innumerable photographs of the interior, indicating all of the architectural and decorative features were made by George Grant.

The old building swarmed with wasps. When we entered it just before noon these insects buzzed about in all directions and all of us were very wary of these miniature flying torpedoes. However, in the afternoon a breeze sprang up and all the wasps disappeared like magic into their nests in the adobe walls.

The floor is several feet deep with fallen roof and wall debris. Here and there treasure hunters have excavated in the crumbling mass of timbers, plaster, brick and earth, but these were half-hearted attempts and in no place did we find a patch of cleared floor. However, we did notice that low down on the side of the west wall small patches of crushed burned brick had been incorporated in the plaster finish as decorative motifs, similar to the effect achieved at Tumacacori on the inside of the two small transept rooms which are buried on the outside of the main structure at that place.

As may be noticed in the sketch map, there was a cluster of buildings immediately east of the church. These formed some of the living quarters. The open space between the east wall of the church and these houses was partly paved with small water-worn cobblestones set on end. One odd thing about this floor or paving was that beneath the stones was a second well defined floor of hard packed earth. It may be that the earthen layer marks the patio level in Jesuit times and the cobblestone paving may be a Franciscan innovation. At any rate, it invites speculation. No answer to this query could be obtained without excavation. Immediately east of the living quarters and emptying out upon the precipitous hillside was the well preserved section of an open square tile drain. It was in line with the houses mentioned and could readily be followed by excavation. A similar drain, smaller in size, was one of the features uncovered during the excavations on the north side of the patio east of the church at Tumacacori.

In the rear of the church, which faces south, was the campo santo. Here were innumerable graves many of fairly recent date. As with all of these old sites, the Mexican inhabitants still prefer to inter their dead either in the old churches proper or in the cemetery near them.

At one time a wall enclosed this cemetery with a gateway on the west side. However, this wall has been demolished and the burials have overflowed and are now spotted irregularly inside and outside the original walled enclosure.

As will be noted, an outer guard wall, foundations of which may yet be traced in good condition (in places) once surrounded the entire establishment. The buildings are fairly well guarded on the north, east and south by rather steep banks. The defense wall followed the contours of this natural barrier. However, the west-north west side was open to attack. Here the hilltop opens out into open rolling country, covered with mesquite and no doubt raiders probably attacked from that quarter.

Kino mentioned having gone to Cocospera to provide for the defense of the place by means of some towers. Usually such towers or torreones as they were commonly termed were round, loopholed turrets, wherein the inhabitants of a mission or a town could rally for protection and to make a last stand against the savage raiders. In a regular fort these bastions would be diagonally opposite corners of a walled enclosure but in Mexican towns the towers usually stood out alone. Although I inspected all portions of the area I failed to notice any circular structures, or even the mounded remains of such. It may be possible that they did exist at one time and have since been obliterated but it is difficult for one who has had archeological training to concede an absolute effacement of such strongholds when lesser structures and useful buildings can easily be traced. Kino does not state that they were built, only that he went there to "cast a glance" at the two pueblos of Remedios and Cocospera and "to provide for their defense by means of some towers."

The terrain west of the church was occupied by a large plaza surrounded on four sides by rows of adobe buildings. Some of these are fairly recent in origin and were occupied until within about 70 years ago, or possibly less. This was no doubt the "pueblo" wherein dwelt the Pima, Papago and Yuma neophytes (I add Yuma because the baptismal records for 1822-36, signed by Fathers Francisco Solano Garcia, Rafael Diaz and Jose Maria Perez Ilena, in the manuscript collection of the Bancroft Library indicate some Yuma Indians present at Cocospera in those years.)

Here also dwelt the Spanish-Mexican residents. Fragments of the blue and white and lavender and white English porcelain dating from about 1820-1840 are found in abundance on the surface, thus corroborating the "Libros de Bautismas" and "Intierros" as occupational evidence during that period.

To obtain an accurate ground plan without excavation is impossible. One interesting feature of this western group of buildings is the well cobbled sidewalk which remains along the inner side of the southern and part of the eastern row of houses. This walk is about six feet wide. Similar walks or pavings may be seen in all of the small Mexican communities of Sonora today.

I believe, however, that the houses which were the last to be occupied were reconstructed habitations, built on the foundations of earlier structures, and were in use until about 60 or 70 years ago. Mr. Vasquez, ranchero in the neighborhood, stated that his father, now deceased, remembered when the mission buildings were in use. The usual debris of glass bottle fragments, bits of porcelain dishes, and scraps of iron work, indicative of an occupation of the period of 1870-1880, were scattered around over a part of the area, mingling with the more ancient Indian pottery and Mexican glazed wares.

That this region yet remembers the Apache is quite evident in the tales told by the rancheros. Sr. Vasquez pointed out a tall, blue peak looming on the southern horizon, which he affirmed was the lookou

usedby Geronimo and his warriors and from their camps on this mountain the Indians spied on the valley below and made their sudden raids upon the little towns and ranches.

Now all is desolation at Cocospera. The wasps are the only living things inhabiting the ruins. The site is wrapped in a thorny winding sheet of mesquite and cactus. In the wide valley below are the fields and pastures of the modern rancheros. At the foot of the hill whereon the crumbling walls of Cocospera stand is the ranch of the Proto brothers who own this bit of historic ground.

We left Cocospera with regret, knowing that here we had found a most intriguing site, one which would yield more information if carefully studied, yet our time was limited and we could not stay.

SANTA MARIA MAGDALENA

On October 19 we decided to make a few notes at Magdalena. However, since this church was the product of the 19th century we felt that it had not definite place in our studies of Jesuit and Franciscan architecture. Moreover, the building does not even stand upon the site of the older Jesuit church as I have noted in the introduction to this report.

When we were in Magdalena all of the regularly inducted officials had fled from the town fearing assassination. There was no presidente nor chief of police. Federal soldiers guarded the telegraph and post office and the Casa Municipal. At the latter place I presented our credentials, and explained the purpose of our visit, and, after some hesitation, Sr. Pablo Flores, the temporary deputy and custodian of the keys to the church, opened the door and let us in.

According to Sr. Davila this building was constructed in 1833. The interior has been redecorated, probably early in the twentieth century. As with all the churches visited which were in usable condition, the altar furnishings, pictures and statues had been removed and deposited in a side room, under lock and key and paper seal, by the Federal authorities.

Here in this church was kept the image of San Francisco Xavier, the statue beloved by Father Kino. (Fig. V) It formerly reclined at full length in a glass encased box vested in rich garments. At Hermosillo we heard common gossip about the streets that it had been burned. One informant stated that it had been incinerated in the boilers of the local brewery. This happened in 1934 probably shortly after the decree was issued to close the churches. In Magdalena, the cremation of the image was at first denied but later the same man who had made this statement admitted that it had actually been destroyed. It is said that ex-President Calle's son wears one of the fingers of this statue on his watch chain.

From the tower of this church one obtains a good view of the old outlines of some of the walls of the original churchyard enclosure in the street in front of the present edifice.

Originally there was a facade on this church but it fell of its own weight. All in all this building is not as interesting from either the point of antiquity, architecture or history as others we visited. Accordingly, we spent but a short time in this place. There was somewhat of a tension felt in Magdalena and for that reason we did not care to prolong our visit. Our guide who opened the door for us was plainly ill at ease, and somewhat nervous over our presence. When Dr. Russell

Public Health Education

In addition to the duties in Rome a few years at inspection, [illegible] that [illegible] the [illegible] [illegible] [illegible]

was in Magdalena in 1934 the church had been converted into a public me ing place for the anti-religious group. When we were in the church evi dences of these meetings were before us in the form of large newspaper portraits of Zapata, Calles, etc. pasted on the walls of the nave. On a side wall was a penciled sketch of a hammer and sickle and a Calvary cross overthrown. There were also some chairs and a table which had be used by the local members of the Agrarian group. However, dust was ov everything and it did not appear to have been used for some weeks. The large banner which had been so prominently displayed on the outside of the building was not in evidence.

For local traditions concerning the location of the ancient capill one should contact Don Serapio Davila, storekeeper in Magdalena. He ha gathered data from various old residents who remembered the old church when it was yet standing. This I have noted in the introduction and in the attached sketch map in the appendix of illustrations.

ALTAR

Leaving Magdalena on the afternoon of the 19 we proceeded to Altar making the trip in about three hours. Having a note of introduction to Pablo Chavarin from his brother in Magdalena I asked for him at the Escobar house which stands on the east side of the plaza.

At the casa we found Hernandez Escobar who upon learning of our quest concerning ancient buildings proceeded to inform us that there had been an ancient capilla in Altar which has now been entirely obliterated

This was interesting news. We had no information concerning such a church. The various writers who have discussed the churches in Sonora h have not mentioned a chapel in Altar and the present building dates from 1846, the year in which it was commenced. It was completed in 1886 acco ing to Alberto Escobar, brother of Hernandez.

Furthermore, we were informed that Alberto had made a pencil sketch of the old building as well as a ground plan. These were produced and copied by George Grant. As a precaution a tracing of the original was also made. (See appendix for photographic copies of the views of this structure.) Fig. VI (*a* & *b*)

At present the site of the old church (which was probably begun con temporary with the establishment of the Presidio of Altar, 1752-1754, or shortly thereafter (and used until the modern structure was put into operation in 1886) is occupied by a cantina operated by Sr. Chavarin, brot er-in-law to the Escobars. When foundations for the cantina were dug many human skeletons in the old cemetery were found and left in place. This campo santo is said to have been abandoned as a place of sepulture about 1850.

In appearance the old church was much the same as the mission of Atil near Santa Teresa. Probably this church was not administered as a mission but was a presidial church and served by one of the padres from the nearby mission of Oquitoa.

It will be noted that an outside stair case led to the choir loft. This was a feature of Oquitoa. The bell gable on the roof was similar in appearance to that of Atil. The building was marked by the same simplicity of construction as those churches we found at Atil, Santa Teresa and San Valentin de Bimanic.

According to Ewing, the presidio of Altar was founded after the Pima revolt, probably about 1752-1754. In a ground plan of the town made between 1754 and 1762 by Joseph de Urrutia (?) (might this not be Urrea, commander of the presidial forces and founder of the presidio?) the old chapel is shown standing on the site ascribed to it by the

Escobars. Furthermore, on the same plat are indicated the "Casa de Capitan" and the "Cuerpo de Guarda" as well as the "Patio dela Casa del Capitan". These are the "Captain's house," 'guard house" and the "patio of the captain's house." We were informed that the Escobar house was the ancient headquarters of the first military commanders at Altar, and that the patio in the rear of the house, filled with a riot of citrus, other trees and plants and tall old palms rising skyward was the garden of the commandantes', and that the small house on the northwest corner of the square adjoining the Escobar residence had been a guard house. This local tradition is corroborated by the old ground plan of the town. Copies of this ground plan of Altar are to be found in the Arizona Pioneers Historical Society, Tucson, and in the Bancroft Library, Berkeley, California. In the same collectio at Tucson is also a ground plat showing the plan of the old presidio of Tubac, Arizona.

SAN ANTONIO DE OQUITOA

We went from the town of Altar to the ranch of Mr. Roy Cutting about five miles east of the town. Here we made our headquarters during our sojourn in and around Altar valley.

Our next objective, the mission church of Oquitoa, we visited October 20. Here we have a Franciscan church of burned brick and adobe standing on a hill overlooking the sleepy little pueblo of Oquitoa.

Oquitoa was designated as a visita of San Francisco de Atil in 1768 when the Franciscans took over the missionary work in Sonora. However, no church was listed at that point nor was there any house for the priest. Hence, the present structure seemingly must date well after the Franciscan occupation.

At present it is a charming little church. It faces south and when in its hey day of activity must have presented a lively scene. Aside from the chapel there were a number of neophytes' houses. These were adobe structures which stood to the south directly in front of the church and occupied the relatively smooth, slightly sloping top of a long point of land. Now these quarters are marked only by mounds of earth and scattered potsherds.

Surrounding the church are many tombs. These are curiously elaborate affairs built in the form of small mission-like cubicles, bearing domes, towers and crosses. From a distance the hill-top takes on the appearance of a small Oriental city gleaming white in the sun, and one almost expects to see the place swarming with inhabitants. Hanging on the crosses of the graves are wreaths of broken glass. These are manufactured by certain men in Oquitoa. The glass is obtained from old colored bottles. It is first burned until it cracks into small pieces. This friable glass is not to the appearance of the funerary offerings making the coronas, as they are termed by the Mexicans, glisten in the sun like so many diadems of diamonds, rubies and emeralds.

The church itself is very simple, befitting in aspect that of a visita. The facade is, or rather has been somewhat ornate but time and the elements have played havoc with the stucco and painted designs. In recent years the church has undergone repairs and reconstruction. How much of this type of work has been carried on since it was first built is difficult to determine. About 1920 the nave roof was renewed and one or two of the rafters replaced but the remainder of the vigas (rafters) and the corbels seem to be original. In 1929 the present choir loft was built. Two side windows were also cut in the church at the same time. In the baptistry is a baptismal font of hammered copper supported on a carved wooden stand. This was unique in that all the other baptismal fonts were of carved stone and copper.

In this same room are also six oil paintings of the crucifixion; these are 31 by 38 inches and represent the following scenes: the Via Dolorosa, placing the crown of thorns on Christ's forehead, the scourging of Christ, the crucifixion with the Roman soldier plunging the spear in Christ's body, the descent from the cross; and placing the body in the tomb. These are fairly well executed by Mexican artists which was done sometime during the

first three decades of the 19th century, judging by the costuming of one or two of the figures.

In the sacristy which adjoins the baptistry are four old rifles. One is a Springfield tapelock of 1855; two are Marlin and Remington single shot rifles patented in 1870, and the fourth is a percussion lock musket made in Danzig, Germany, which has been altered from flint to percussion lock.

Other than three small bronze bells there were no items pertaining to the church rituals in either the baptistry or the sacristy.

We returned the key to the custodian, Ramon Figueroa, who lives in a small adobe hut southeast of the main part of Oquitoa. Here we saw one of the rawhide sacks known as a tenate. (Figure VII) Such containers have been manufactured in Mexico for several centuries and must have been in use at the time the northern part of Sonora was being colonized. Figueroa also had a small bowl of broken glass fragments prepared for corona making. However, he stated that he only prepared the glass, and the actual labor of making the wreathes was done by another man in the town. A water wheel in Oquitoa supplies the power for a flour mill. At times the same power turns a small ore reducing mill.

The present mill does not seem to be very old. Apparently, however, the town of Oquitoa has long been a milling center. During the 1860's two flour mills were located here and from these establishments came the coarse, poorly ground flour which supplied the U. S. Federal forces of Arizona, then stationed at Tucson, Tubac, etc.

SAN FRANCISCO DE ATI

This mission, visita of old Oquitoa, was a visita [illegible] miles north of Oquitoa. It is said to have been a very small poor church in 1756 when Fr. [illegible], the first Franciscan, came to take charge.

The old structure is now in a sorry state and within a few years more will be a formless mass of melted walls. The walls of the ancient church stand close to the new modern structure.

We arrived at the town of Atil at 1:00 p. m. Sunday, [illegible], for a cursory examination of this chapel. The chapel faces east and is within the limits of the town.

The fallen walls prevented any accurate deductions and the fact that the building has been patched and rebuilt in times past made the task of determining the physical aspect quite difficult. An example of this rebuilding was evident in the ruins of the main altar. Originally the interior of the chapel had been plastered with a thin coat of poor plaster and the west end had been painted red. This red plaster had been scored into squares and outline figures of fruit, birds, etc. were crudely scratched on this imitation tiled background. Later, the main altar of adobe bricks was built across the end of the church hiding this original decoration.

It may be well to note at this time that in the early 18th century buildings, and late 17th century edifices, in Sonora

at least, the plaster was usually a thick coat of lime wash.

Attached is a sketch of the ground plan of the church. (Fig. X) It is not drawn to scale and includes the ruins of chapel and part of the priest's quarters. In modern times, the present occupants of the village have altered the old church, walling up arches and adding storerooms of some of the old living rooms.

Alongside the ancient chapel on the east stands the modern church. This is an uninteresting building and since it had no part in our studies we did not examine it. I was informed that the old cemetery was in front and on the side of this later building; in other words, it would appear that the new church was built within the confines of the burial ground.

As may be noted in the sketch, the line of buildings formerly extended to the east and south of the old church. On the west side was a walled enclosure. This church originally had a bell gable which was reached by a series of steps on the west side. This gable stood until this past year or so. It has now entirely disappeared and the bells are suspended in front of the modern church. These are fairly new bells, having been cast in 1903.

SANTA TERESA

Within a few miles northeast of Atil, on the west side of the road stands the ruins of Santa Teresa. This was originally a visita of Tubutama. We visited this site twice; once on Sunday, October 20, and again on October 24.

The church proper, which faces northwest, was larger than that of Atil and in the course of years the establishment extended in a rambling fashion north and east, and southeast. Northeast of the chapel were a series of rooms which were evidently part of the cloister, or priest's quarters. Southeast, in a long row, were the simpler, more flimsy habitations of the neophytes. When the Franciscans took over the Jesuit property in 1768 the church at Santa Teresa was noted as being small and devoid of ornaments and having a house for the father. The Indian population at that time was fifty-two souls.

In 1751-1752 occurred the Pima uprising. Santa Teresa was the headquarters of Sebastian, one of the Indian leaders, who, with about 1000 rebel tribesmen fired the church and house. Consequently, this picturesque station, now isolated and partially hidden by brush and cactus was at one time the scene of thrilling activity.

Evidences of Apache raids are yet to be seen in the presence of small arrow heads found in the ruins.

The chapel was built in the form of an L, the adobe bricks of which it was constructed were relatively thin, while the mud mortar with which they were cemented was thicker than the bricks themselves.

The sketch map indicates the general plan of the mission. (Fig. XI) Owing to the almost complete disintegration of the neophytes quarters it was not possible to obtain accurate ground plans of those houses. Over the thicker walls of the convento were difficult to trace with any degree of accuracy. The usual

amounts of broken pottery, stone implements, and fragmentary remains of European cultural material were scattered in profusion about this place. Here we made a type collection of artifacts as we did at those sites where we could feel fairly certain that the later mid-19th century specimens did not appear. No collection was made at Atil for the simple reason that there was too much surface debris of the 19th and 20th centuries in evidence.

In the brush, across the road from the mission, in the direction of the Altar river, which is but a few rods eastward from the old church are very Indian but sites, which are apparently more ancient than those adjacent to the chapel proper. The whole area here gives mute evidence of having supported a large population.

In fact, the entire Altar valley seems to have been well occupied by the Indians. In the low range of hills opposite the town of Oquitoa we saw the terraces of trincheras. Broken pottery and artifacts may be picked up along this valley at many places. The region is well worth an intensive archeological survey. While the Papago pottery seems to predominate, there are many sherds of the ware commonly associated with the trincheras. Similarly, the stone artifacts indicate a mixture of the cultures. The small basic arrow heads circle with the larger stone blades, and Papago arrow straighteners. The pot sherds show different degrees of weathering, and in many cases the camp sites are only discernible by the scattered fragments of pottery, broken fire stones, flakes, etc. The houses in such instances have long since disappeared.

We heard a rumor of a mill that had at one time belonged to Santa Teresa which was on the river southeast of the church. We visited this place but found it to be a mill erected sometime during the 1850s or 1860s, now in ruins and the buildings occupied by a poor Mexican family. However, at this point are many old fruit and palm trees, the latter once very tall, and are visible over the dense foliage of the river bottom. The Altar river which is an intermittent stream is dry along this particular stretch. There may be other fragmentary ruins of buildings once a part of the mission established along the river, but we did not have the time to search for them. It must be remembered that in all cases where these missions were established, there must have existed sites of one kind or another depending upon the resources of that particular region. Such industries as milling, tanning, brick making, lime burning, etc., were carried on. We found one small cistern-like structure directly in front of the living quarters of the priest of Santa Teresa, which may have been simply a small water reservoir. It was 7'2" by 3'7" the depth uncertain as we did not have time to excavate it.

SANTA TERESA DE LA CONCEPCION DE CABORCA

We determined to inspect this church before attempting Pitiquito or Tubutama, reserving these places for the last. Accordingly we obtained a letter of introduction from Fr. Escobar to Sr. Rafael Celaya, presidente of the ayuntamiento at Caborca on October 21, and went direct to that town.

The present town of Cahorca is modern in as much as any of the towns may be said to be modern. Here is concentrated all of the activities of the area. The older pueblo which once clustered around the mission church is a short distance to the east, is slowly decaying on the banks of the river which will ultimately engulf the crumbling adobes as it has erased even the rear portion of the splendid edifice erected by the Franciscans.

This mission was originally founded by Fr. Francisco Xavier Saeta in October 1794. He was slain by rebellious Indians of Tubutama, Oquitoa and Santa Teresa, early in the morning of April 2, 1695. Cahorca seemed fated to play a bloody role in the history of the western Altar district. On November 20, 1751, when the Pima rebels again swept down the valley with fire and arrows, Father Tomas Tello fell a victim to their fury. Still later, in 1857, the church was the scene of violent fighting when the townspeople of Cahorca were driven into the old mission by a band of filibusters headed by Henry Crabb. The action ended when Crabb and his men were smoked out of their adobe house-fort opposite the church, and surrendered to the Mexicans. The prisoners were promptly executed.

The present structure is Franciscan in origin. In 1772 Cahorca had two visitas, that of San Antonio del Pitiquito and San Juan del Bismio.

At the time floods menaced the structure, and in 1771 the padres moved back from the river to a point on the wide plain, hoping to build in safety. The lands were excellent for cultivation of many types of crops. Cotton was raised here as early as 1740, which the Indians wove into garments (Noticias de la Pimeria del año de 1740. pp. 850-862, by Jacobo Sedelmair, written at Tubutama Apr. 20, 1747)

In 1772 cotton was still an important crop but other items raised here were, wheat, corn, barley, etc. There were extensive gardens in which grew quinces, pomegranates, peaches, lemons, oranges and grapes. At that time the church was well decorated. The sacristy had two silver chalices, silver vinajeras and a silver shell for bautism. The Indian population numbered 654.

Today, the church is a sorry wreck. Fully half of the fine structure, which is solidly built of stone and burned brick, and two sturdy bell towers, has been destroyed by the river. The stream which at certain times of the year forms down the sandy bed has eaten away the main altar and all of the structures that once stood in the rear of the building. The remainder of the nave which is in good condition has been walled up at the east end now serves for a school. When we were there, a young schoolmaster had some forty-eight children under his care. The equipment was most scarce, and the doctrines being taught were strictly in accord with the communistic leanings of the Agrarian party now in control of the nation. One Mexican bystander confidentially told us in a bitter whisper, "They teach the children "no hay dios" (there is no God). The text book is patterned somewhat upon the Russian theories.

Cahorca must have been an elaborately decorated structure prior to the flood. We obtained copies of photographs made by a Mexican photographer, Feb. 2, 1895 on the occasion of the

celebration of the patron saints day and those pictures show the structure prior to the destruction by the water.

The interior was evidently lavishly decorated with painted designs, but these, with a few exceptions have been whitewashed. This reornamentation was probably done sometime late in the 18th, or early 19th century. Likewise a certain amount of reconstruction must have been carried on at the same time. This was evidenced in the alterations made on the side altars and in the niches on either side of the large cruciform niche above the north side alter. In the latter cases the niches had been walled solidly, and whitewashed. Most of the elaborate color work had been concealed under a layer of whitewash.

Even in the main portion of the church this effacement of designs has been carried out. There are a few exceptions. In the center of the first dome of the nave is a modeled fish motif which is painted a copper green. It would appear that the older painted designs were done in brick red, copper green and blue, steel grey blue and salmon pink, while the later painting was done in vivid cobalt blue. Here and there the various colors peep through the whitewash and by careful scaling we were able to obtain our first hand knowledge of this change in decoration.

The church was originally in a cruciform shape and was probably one of the most elaborate of the chain, the only others comparable were San Xavier del Bac and Tubutama. In appearance, Caborca more closely resembles the plan of San Xavier save that the facade is not as ornate. Tubutama whole more rococo inside at present has lost a great deal of the gingerbread work that once adorned the exterior of the facade.

Caborca faces almost due west, fronting on the dying remnants of the old pueblo where a few hardy souls yet live in defiance of their more progressive brethern who have moved further to the west and northwest.

On the north side of the church is part of an arched corridor which at one time was the portico of a row of rooms which probably gave on an inner garden. In line with the front of the church and extending north, along what is now the bank of the river, but which in ancient times must have been a fertile plain, were long rows of adobe structures. These may have been the houses of the neophytes or possibly work shops. The sites of these structures are now marked by low, badly eroded mounds, and stone foundations, visible where the encroaching river has eaten away the earth.

Under the arches of the convento, as it was known, along the south wall of the corridor was a bench about 18" high, well plastered and tinted red. To the left of one of the doorways a similar bench about 23" high formerly stood but this has been destroyed. These features are mentioned in that they tally with the benches which were along the inner corridor of the patio of Tumacacori on the east side of that mission church. These plastered benches were uncovered during the course of excavation in 1934-35 and have since been covered with earth.

It was in this convento on the north side of Caborca that the women and children of the town took refuge from the 'merican filibusteros the first part of April, 1857. The Mexican

celebrations of the patron saint's day and these pictures show the structure prior to the destruction by the water.

The interior was evidently lavishly decorated with painted designs, but these, with a few exceptions, have been whitewashed. This [illegible] was probably done sometime late in the 18th or early 19th century. Likewise a certain amount of reconstruction must have been carried on at the same time. This was evidenced in the alterations made to the side altars and in the niches on either side of the large crucifix niche above the north side altar. In the latter case the niches had been walled solidly, and whitewashed. Much of the elaborate color work had been concealed under a layer of whitewash.

Even in the main portion of the church this effacement of designs has been carried out. There are a few exceptions. In the center of the first dome of the nave is a molded [illegible] which is painted a copper green. In small areas where the [illegible] original designs were done in brick red, copper green and blue, steel gray blue and salmon pink, while the later painting was done in vivid cobalt blue. Here and there the earlier colors seep through the whitewash and by careful scraping we were able to obtain our first hand knowledge of this change in decoration.

The church was originally in a [illegible] and was probably one of the most attractive of the state, the only others comparable were San Xavier del Bac and Tumacacori. In appearance, Caborca more closely resembles the plan of San Xavier except that the facade is not as ornate. Tumacacori while more ornate [illegible] at present has lost a great deal of the atmosphere [illegible] that then once adorned the exterior of the facade.

Caborca faces almost due east, fronting on the [illegible] of the old pueblo where a few Papago people yet live in [illegible] of their more progressive brethren who have moved further to the west and northwest.

On the north side of the church is part of an arched corridor which at one time was the portion of a group of rooms which probably served as living quarters. In line with the front of the church and extending north, along what is now the bank of the river, but which in earlier times must have been a fertile plain, were long rows of adobe structures. These may have been the houses of the neophytes or possibly store rooms. The sites of these structures are now marked by low, badly eroded mounds and stone foundations, visible where the encroaching river has eaten away the bank.

Under the arches of the convento, as it was known, along the north wall of the corridor was a bench about 18" high, well plastered and tinted red. On the left end of the facade [illegible] a similar bench about 18" high formerly stood but this has been destroyed. These features are mentioned in that they tie in with the benches which were along the inner shoulder of the walls of Tumacacori on the east side of that mission church. These plastered benches were uncovered during the course of excavation in 1934-35 and have since been covered with earth.

It was in this convento on the north side of Caborca that the famous and [illegible] siege took place between the Mexicans and the Ameri-can filibustering the first part of April, 1857. The details

version of the expedition attributes the failure of Crabb's attempt to blow up the convento to the miraculous appearance of the patron saint of the church.

We made as many observations on all parts of the building as our limited time permitted. From the bell towers one obtains a fine view of the surrounding terrain. These towers are interesting, and narrow stairways leading to them, more so. The old tiles on the steps are so badly worn that unless one is careful, one is likely to stumble and fall. The sides of the passages are polished by the contact with the countless numbers of persons who have climbed to the towers. Here again one senses a similarity to the approach to the towers that one finds in San Xavier although these stairs are longer and have more arched passages.

In the lower part of the north tower are four bells. Two of these are lying on the floor of the tower; two are hanging cracked, and almost useless. One pair of these were cast in 1898; one in 1816, and the fourth has no date on it.

The oldest one bears this inscription on the rim. "Purysssma Concepcyon de Maria An. de 1816". Evidently these bells were rung from below, outside the tower. This is graphically shown by the deep narrow slots abraded in the burned brick of the outer edge of the facing of the bell tower arches where the ropes have slowly cut their way during the course of the years.

Scrawled on the inner walls of the towers are many names. In the south tower the oldest is "Juan Ricketson, 1854". Another "party" consists of "D. W. Harvey, C. Y. Wimple, J. P. Gabriel, and J. Speedy, 1866". There were many visitors here during the 1870s, 1880s, and late 1890s. On Feb. 2, 1892, a holy feast was held at Caborca and among those who attended at that time were Alberto and F. Escobar. These men were also there Dec. 2, 1888. Alberto Escobar was the artist now living in Altar, who drew the ground plan and side elevation of the old church at Altar, since destroyed.

The facade of the mission is pitted in places with bullet marks. These are the mute reminders of the siege of April, 1857. The plaster around the windows in the southern bell tower is badly chipped, and under one window (inside the tower) a loop hole, gouged out by one of the defenders of the mission, is still visible.

There was no original furniture in the church. All of this has long since disappeared.

SAN DIEGO DEL PITIQUITO

On Tuesday, Oct. 22, 1935, we left Altar to make observations at this mission.

Pitiquito was founded by Kino sometime prior to October, 1694. However, it was never of much importance, structurally speaking, until after the Franciscan accession of the Jesuit field. This mission was formerly a rancheria of Pitiqui attached to Caborca and in the first half of the 18th century was known as la Natividad del Senor del Pitiqui. (Documentos Para La Historia de Mexico, pp. 617-637). At that time, some ninety-six families lived there

as well as sixty-seven widows and fifty-four orphans. In 1768, when the Franciscans took over the churches, the place was known as San Antonio Pitiqui, and there was neither church nor house for the priest at that place. Fr. Juan Diaz was the first Franciscan at this post, 1768-1773. The present brick structure was was built sometime between 1768 and 1778.

We arrived at the town and presented a note of introduction from Mr. Roy Cutting to his friend Manuel Tisnada, presidente of the pueblo. Sr. Tisnada was a butcher, but an agreeable man withal. He assigned Francisco Bonillas, the commandante de policia, to our party, and Sr. Bonillas took the key, opened the church for us, and stayed with us, giving such information as he had concerning the church and the town.

The templo stands on a small elevation facing west. The modern town sprawls at the base of the hills in the rear of the church, and the scattered houses of the older pueblo lie in front of the structure. According to Bonillas, local tradition claims that the town takes its name from a famous Indian chieftain who once lived in the rancheria where the church was built. This leader, known as Piti or Pitic, fought against the Spaniards but was ultimately whipped in a battle on a small fortified peak west of the church known as Sierra Cuisuan. On this hill are the remnants of stone walls. Another Indian chief identified with the history of the region was known as Canedo, and a peak immediately west of the town bears his name. North of the church, rimming the horizon, are the low hills comprising of the Sierra de Pitiquito. Here, in the western end, where the hills begin to diminish somewhat, a fight occurred on April 11, 1911, between the forces of Francisco Reina, Maderb adherents, and a rebel band. The Maderistas won, and three or four slain soldiers were buried in the modern cemetery northwest of the town.

Although this church was constructed in the 18th century, there have been some "improvements" made at various times.

It is solidly built edifice of stone and burned brick, and in some respects differs from the other churches we visited. For example, the interior workmanship is solid, massive construction, especially the pulpit and the lectern. These are built of pillars and arches and give an air of austere frigidity to the place not encountered in the other buildings.

In 1897, a new wooden floor was laid, the broad, stone, and concrete steps, and the platform leading to the front entrance was constructed, a new brick bell gable was added to the roof, and two bells, cast by T. Romero, (this man was probably of the Romero family, who lived in Tubutama, where the bells were more than likely cast.)

At this same period, the main alter was reconstructed, a plain wooden affair being built over the original of brick and plaster. Stained windows were also installed, and later, electric lights were added.

The original main doors have long since disappeared, and much of the other wood work is comparitively modern.

Of original furnishings, there are but a few remnants. In the small dark room at the base of the bell tower stairs, on the north side of the church, we found a small, 18th century "arca", or wooden chest. This was smaller than the one in the baptistry of San Ignacio, but of the same type. The iron hasp and ornamental

iron lock escutcheon were gone. At one time this chest had been covered with black leather, but even this had rotted away, and had been pulled off, leaving only a few hard, dry scraps nailed along the sides of the body and lid. The chest was 34½" long, 15½" wide, and 14" high. Fig. XII.

In the sacristy was a large, old, 18th century cupboard, or chest, with two panelled doors. This stood 43½ inches high, was 30½ inches wide and 58 inches long. Fig. XIII.

These two objects were the only items visible pertaining to the days of the founding of this building. There were rumors of other pieces of furniture and fittings, which had been taken from the mission, and were said to be in the possession of a pious lady of the town, but I could not obtain her name.

On the south side of the church was the convento. Here is the same domed, arched, portico, or colonade as that found at Caborca, and which probably stood on the inner side of the eastern patio at Tumacacori. A portion of the old rooms are here, in ruinous condition, but the main portions of the convento are gone and only the heavy stone foundations are visible.

On one of the side doors of Pitiquito are two paper seals typical of those posted on the doors of the churches by the Federal government when the religious structures were closed by governmental order. The seals, ordinary strips of bond paper, bear these words typewritten on them, "Pitiquito, Dcre. 15, de 1934 sellado por orden Superior."

Our preliminary survey of Pitiquito was soon finished, and we decided to push on to our next objective.

SAN JUAN del BISANIG

This was a visita of Caborca and is sometimes known as San Valentin or plain Bisani. Another name was Nuestra Senor de Populo. This mission was apparently flourishing in 1768. In 1772, it was described as being six leagues west of Caborca and had a church and house for the priest, but the former was unadorned and the latter unfurnished.

This visita was the headquarters of some of the Pima rebels who fled here after 1751, and in the beginning of 1772, after more trouble, some of the population fled to the hills. It seems always to have been a center for troublesome spirits and, being on the fringe of the mission settlements, offered a haven to renegades. By nature, the spirit of the outpost of Bisanig was restless. Although the farm lands were excellent, the Indians dwelling there preferred to live by fishing in the sea, distant some eight or ten leagues from the rancheria. Today, this preference is borne out by the quantity of shells scattered over the occupational area of Bisanig. In fact, of all the sites visited, this one indicates most plainly the affiliation of the inhabitants with maritime industry. No other mission has so many shells around it.

The mission church, although a simple adobe structure, built with two wings, one being the baptistry, the other the sacristy, having a small patio on the west side between these two, was not without a certain charm in arrangement which must have made life a trifle more easy in that desolate outland of deserted plain and sterile hills.

As may be seen in the accompanying sketch of the ground plan, the chapel faced south. Fig. XIV The mission stands on a level,

Fig. XII.

alluvial plain. The lands are known as being of the tierra temporal, watered only by intermittent rains. The present well, which furnishes water to the ranchouse occupied by Sr. Macedonio Yenez, caretaker of the ranch owned by Sr. Pedro Gonzales, is 200 feet deep, giving some idea of the water level at this place. In Caborca, the water level is close to the surface.

The passing years and the indefatigable spades of the treasure hunters have dealt harshly with San Valentin.

The walls now standing are badly eroded but are high enough to indicate the approximate size of the building, as it appeared in good condition. Although the edifice was built of adobe bricks, a certain amount of burned tile and burned bricks, fired in a kiln which stood a hundred and fifty yards or more to the southwest of the chapel, was used. The main altar, now totally demolished by gold hunters, was of burned brick, and charcoal ore, the flooring was of fired tile.

The nave of the chapel was about seventy-three feet long and fifteen feet, ten inches wide. The cuercro or wing, in which the baptistry was housed, was twenty-six feet long, and perhaps twelve or fourteen feet in width. The sacristy was smaller. Along the north side of the baptistry wall extended a portico, the roof of which was composed of brush, grass, and adobe upheld by adobe pillars. This sun shade was twelve to fourteen feet ~~in~~ wide. In the wall of the baptistry, sheltered by the roof of the colonnade, were a series of small plastered niches. One of these could be identified. In this niche was the fragment of a moulded plastered crucifix. Apparently these niches extended along the wall of the baptistry and the west wall of the main church, as we found traces of one of the niches on the latter wall. Judging by the remnants of plaster, the building had undergone renovation several times. The primary coats were the usual poor, thin, whitewash plaster, but the last finish was fairly hard. This was best in evidence in the small circular window in the south wall of the baptistry. Here the plaster had clung to the adobe casing of the window and was in excellent condition.

At Bisanig, as well as at all other sites, the treasure hunters had been at work, and gaping holes in the floor, the total destruction of the main altar, and undermined walls gave a graphic picture of their foolish industry.

West and northwest of the chapel, were the long rows of adobe and wattle-and-daub huts occupied by the neophytes. These have long since disintegrated, leaving only the lines of stone foundations, the masses of broken pottery, fragments of stone implements, and many seashells such as the glycimeris, turatella and conus. The pottery fragments here are typical Papago, and I did not see the Trincheras ware, at least not in the quantities so prevalent on sites in the vicinity of Altar, San Ignacio, Cocospera, Dolores, Imuris, etc.

Owing to the out-of-the-way location of this mission, few tourists visit the place; consequently, the camp debris is practically as it was when the last Indians moved away. I believe, from certain evidences of material culture found on the ground, that the Papago lived here until about the middle of the 19th century, long after the mission had been abandoned. Even now the crude wooden crosses made by the Christianized Indians, stand,

thickly planted, over the poor native burials inside the slowly dying walls of the baptistry. It took many years to plant the seeds of Christianity in that harsh land, and now the vines thus planted are slow to perish. Even though the ministering influence has become but a memory, the Indians cling tenaciously to the precepts taught their forefathers by those hardy toilers in the vineyard of God.

The road to Bisanig is rather difficult to follow. Leaving Caborca, one turns to the southeast and follows the main travelled highway, if such it may be called, which gradually bears away southwest across a series of low flats, thence through a low range of hills and out into more brush covered flats. The trace winds through heavy bursh and emerges on a grassy flat. This is about ten miles from town. Here is a junction of the roads. The traveler seeking the mission takes the left hand branch and follows it to Rancho Bisanig where Sr. Yanez holds forth. This ranch is about fifteen miles southwest of Caborca. Only one gate has to be opened along this road.

About nine miles west of Caborca, on the south side of the road, a point of rocks juts out from a low, rocky ridge. Here are many fine Indian petroglyphs which will well repay anyone interested in such matters.

SAN PEDRO Y SAN PABLO DE TUBUTAMA

This mission lies north of Oquitoa in the Altar valley, about twenty one miles from the latter town.

The church stands on top of a hill from which a pleasant view is had in all directions. To the northwest is the Sierra San Juan, to the southwest Santa Teresa. The river flows along the base of the hill to the north. The town of Tubutama clusters around the church and the plaza upon which the edifice fronts. In the valley are the broad fertile fields producing luxuriously of all manner of crops as indeed all the flat lands of the Rio Altar seems to do. Here in times past, the padres must have had great success with their agricultural endeavors between Apache raids and rebellious Pima and Papago neophytes.

We journeyed to Tubutama on October 24th. We found the presidente a bit suspicious, nothing overt, just an air of aloofness not displayed by other officials with whom we had come in contact. However, after chatting with him for awhile, he became more agreeable and stayed with us (as some of the officials usually did..in hopes of a tip and to see that we did not steal the churches stone by stone.)

Tubutama faces east. The building as it stands is probably of Franciscan origin, walls of adobe faced with burned brick, but the mission was founded by the Jesuits under Kino. For many years it was an important link in the Kino chain and had as its visitas, Santa Teresa, Ati, Oquitoa, and probably later the presidial church in Altar.

In 1730, according to the author of Estado de la Provincia de Sonora", which gives a descriptive list of all the towns, churches and missionaries in Sonora in 1730, Tubutama had four towns under its jursisdiction, and at the mission itself there were forty two families, twenty two widows and twenty-five orphans. In 1768, Tubutama was flourishing, the church was well supplied with all

the necessary paraphernalia for conducting church services, the house of the fathers was neat and spacious with a good garden. There were 176 people at the mission and the natives were actively employed raising wheat, corn and beans, although as agriculturists they seem not to have had too much ambition.

Here on March 29, 1695 began the Pima uprising when the Indians of the Altar valley attacked a group of Opatas brought in to aid in the work at Tubutama. They slew three of these alien tribesmen at Tubutama, and then the rebels moved south to attack Caborca. As it so happened Padre Daniel Januske in charge of Tubutama was absent when the murders occurred, which occurrence probably saved his life. As it was, Padre Francisco Javier Saeta, resident priest at Caborca, fell a victim to the fury of the warriors.

The mission at Tubutama suffered at this time. The Indians set fire to the house and chapel, destroyed images, pictures and vestments.

However, in the years that followed, Tubutama regained strength and was prominent in the church history of the Altar district for many years.

Anza visited Tubutama in January, 1774 en route to California. In the year 1781, on July 17th and 19th, four Franciscan missionaries, Fr. Francisco Garces, aged 43; Fr. Juan Antonio Barraneche, his assistant, 32 years old; Fr. Juan Diaz, 45 years of age, and Fr. Jose Matias Moreno, 37 years stationed at the Yuma mission on the banks of the Colorado, near the mouth of the Gila river, were slain by the Yumas.

An expedition was sent to find the bodies and transport them to Tubutama. The bones of the four priests were placed in one box and carried to the mission where, "after the usual ceremonies, they received a most honorable burial on the Epistle side of the main alter." (Englehardt, Zephyris, Rev. Franciscans in Arizona, pp. 147-148) Dr. Bolton in his work on Anza's Expedition, v. 2, p. 72 (?) states that the bodies of Garces and Diaz lie in Tubutama, but Englehardt (p. 151) asserts, "some years later the relics were taken to the mother-house at Queretaro and there solemnly interred on July 19, 1794. A sermon on the virtues and merits of the four martyrs was delivered in Spanish by Father Diego Miguel Bungas de Manzande and another in Latin by Father Jose Maria Carranza."

Thus it would seem that the mortal remains of the famous California padre Francisco Garces lie in Queretaro rather than Tubutama.

An examination of the present church at Tubutama indicates many changes in construction. The interior is far more elaborate than any of the other churches in the chain. It has a main altar and two side altars. The two side altars are covered with a multitude of moulded designs. The one on the left of the main alter is decorated with all the symbols of the crucifixion. There may be seen in bas relief, representations of the spear and sponge, hammer, pincers, cross of thorns, the flail and the ladder.

The main altar was apparently of painted and gilded wood work, but all portions of this elaborate structure have been stripped away. The nave is painted and covered with moulded ornaments. The colors are fairly brilliant and the patterns stand out in greenish black, and vermillion. The dome over the center of the nave is also lavishly decorated. However, as with many such interiors, the total effect is more bizarre than one of good taste.

The altars are of heavy mesquite wood which have been plastered over.

66-67-68-69

As intimated in previous paragraphs, this edifice has seen many changes. The walls of the structure have evidently been heightened. This was done when the choir loft was installed. As one stands on the floor of the loft the ends of the old supporting roof timbers are visible flush with the wall on either side, where they were sawed off to give head room to the choir. This loft has an interesting railing, details of which were sketched by Delong.

Other evidences of reconstruction at Tubutama are seen in the addition of the bell tower, the burned brick facade which at one time was (and still is to a certain extent) lavishly decorated with an embroidery of moulded brick and plaster motifs, which in turn were painted. In the sacristy is a window which gives evidence of having been remodeled at least three times. Originally the window was in the shape of sketch (a) then, when the veneer was added to the outside, it was changed to conform to the shape indicated in (b) and now, has been shortened inside to the form shown in (c) with modern glass panes and bars. Fig XV.

A unique feature found in the church, not observed elsewhere was the presence of a number of carved and painted wooden replicas of pomegranates stuck in the plastered ceiling under the choir loft. These peculiar ornaments cling to the ceiling like so many darts thrust there by some mischievous boy and are noticeable the moment one enters the main door of the church. This ceiling is badly cracked, has been for some time, and a sturdy mesquite timber has been planted in the center of that portion of the nave under the choir loft floor upholding the arched roof. Local tradition has it that a priest lies buried at this place.

Four bells hang in the first arches of the bell tower. One was cast in 1740, a second in 1742, a third in 1875, and the fourth, a smaller bell, had no date. The flooring of the upper portion of the tower has rotted away and not having a strong ladder I was unable to reach the four bells hanging in the upper arches to decipher the dates. In 1925 parts of the bell tower and roof were repaired, but the platforms were left untouched.

The steps leading through the narrow passageway onto the roof are badly worn and in places scarred with soot from candle flames. Here too, on the ledges of the bell tower arches one observes the deep slots cut by the bell cords and by lining up the direction of the cuts with the bells and the ground, one is able to determine the spot whereon the bell ringers stood.

In the entrance to the choir loft, which one reaches by three short flights of tiled stairs, the flooring is composed of flat triangular adobe bricks. These triangular bricks were found only at this place. Here, on the smooth plastered walls, and ceiling of these narrow arched stairways, the streaks of candle smoke have left their grimy marks. In many respects Tubutama has more such personal touches of the former inhabitants than some of the other missions. Caborca, ruined and used as a school has but a slight trace of such feeling; heavy stolid Pitiquito with the bat flight flittering endlessly from the dark mow of the pulpit entrance to the domed ceiling and back in the approved style of a haunted edifice, lacks the human touch; San Ignacio perhaps most nearly approaches it, and even ruined San Valentin has that indefinable something which bespeaks the presence of its former occupants, but here in Tubutama, one senses the unseen [illegible] shed by the builders. From

the roof, near the bell tower, a wonderful view of the surrounding terrain and the village is obtained. Sitting there in the quiet of the morning with the fields drowsing along the river and the desert wild life clutching at the irrigated green along the stream, with the small grey doves perched on the coping, and the low, musical sounds of a work-a-day life of a backwoods Mexican pueblo rising as the pale threads of mesquite wood-smoke filters onward, the mountains misty grey-blue on the horizon, one feels that here, the padres must have come to meditate and gaze out over the landscape.

Tubutama has been despoiled of practically all of its furniture and fittings, as have the majority of the churches. San Ignacio alone is rich in pictures, statues, vestments, and odds and ends of paraphernalia.

In the sacristy is a piece of furniture with two panelled doors known as an armario. This is a good 18th century item and indicates in what manner, and how solidly those old builders manufactured even the most homely bits of furniture for use in their frontier churches and homes. This heavy combination cupboard and table is seven feet, ten inches long, forty two inches high, and 34½ inches deep. There were two compartments with a single shelf. The entire piece was constructed of mesquite, a wood which seems to last indefinitely. There were two original iron hinges on each door of the pattern shown in sketch. Fig. XVI. These hinges were 3 3/4 inches long and 1 inch wide. The doors were panelled as indicated in the sketch.

Built in the north side of the sacristy wall was an ambry or a cupboard, which even in its partially ruined state showed the care lavished upon it. At one time it contained many little compartments and according to Duell the colors were quite vivid in 1921. It was suggestive in its arrangement of the early 18th century vargueños. George Grant photographed both specimens of furniture.

Even the iron pictures hangers which were driven into the walls were decorated. (See sketch for example.) Fig. XVII.

At one time there were many buildings surrounding this church, but these have been destroyed. South of the chapel, in line with the church building, was the convento, and the quadrangle so often found in association with the larger mission establishments. Only the foundations of part of this are now visible. A new school building has been erected on this site and the outline of some of the old foundation walls are to be seen in the front and rear of this modern structure.

NUESTRA SEÑORA de LOS DOLORES

This was the mother mission of all the Pimeria Alta, founded by Father Kino in March 1687.

It is strategically situated on a high point of land with the opulent level, lowland fields of the river San Miguel stretching away on both sides from the base of the rocky tongue upon which the mission establishment was built..

As with many of the missions, Dolores "just grew". Building activities are indicated as early as April, 1687, and by 1689, Dolores was reported as having a church, house, and rich fields planted to crops. On April 26, 1693, the new church at Dolores was

dedicated. However, in the years that followed Kino's death Dolores began to go down hill. By 1730 the missions of Sonora were in a dilapidated state. They rallied however, and flourished again. However, Dolores was abandoned before 1762 because of the unhealthy climate.

On Monday, October 28, we left the Cutting Ranch for Dolores. En route to Magdalena, from Altar, we halted at La Playa to examine an archaeological site. This was particularly interesting for the reason that here, on a wide, alluvial plain, within three hundred yards of the Santa Ana-Altar highway, is an ancient camp and work shop site whereon were manufactured hundreds of the shell bracelets traded so widely throughout the pueblo region of Arizona and New Mexico. Apparently, the Indians lived on this ground for centuries. A wide area is covered with broken stone implements, pottery sherds, and hundreds of rough ovals cut from the centers of glycimeris shells, brought many wearly miles on foot from the Gulf of California, probably from the vicinity of Bahia Kino or Puerto Libertad. Seasonal rains have cut arroyos through the silt deposits therein these artifacts are buried and as the soft earth washes away the heavier objects tend to settle in irregular layers and masses. These deposit on the harder sub-strata where they may be gathered by the hundred. From this point the finished bracelets and earrings were carried hundreds of miles to the north and east, and are now found in ancient pueblo sites in great numbers. About two and a half miles southeast from this place is the long, low hill covered with the rows of rocky terraces which were once the foundation of the jacales of the Indians inhabiting the hill. This is the famous "Las Trincheras" concerning which a great many references have been made, but no accurate analysis of the place has yet been written. As a matter of fact there are many such trincheras in Sonora and extending into Arizona.

Eleven miles from the Cutting ranch on the south side of the Altar-Santa Ana road is a small trinchera, about one half mile distant from the highway. South of the town of Magdalena 3.7 miles on the east side of the Magdalena-Sta. Ana road is another fair sized trinchera and 10.8 miles south of the same town is yet another of these sites. Fifteen miles east of Magdalena on the rough and rocky road to Dolores Canyon is a steep conical peak which has many excellent rock terraces on it. The appearance of the masonry from the highway seems unusually firm and well built.

These are but a few of the sites which we saw from the automobile. No attempt at examination was made. We had no time and I cite these examples and locations to indicate the wealth of such material awaiting investigation. From such villages Kino and his associates and the later Franciscan priests drew their neophytes in addition to the round wattle and daub huts of the Pima and Papago.

We camped for the night in Dolores Canyon within a few miles of the ruins.

The spot where we camped was known locally as Santa Clara. Here on the west side of the stream high on the old river terrace was the remains of a two story rock house, the outline of a huge corral some 250 by 300 feet and, closer to the river, the outlined foundations of four or five small houses, about ten by fifteen feet in size. The corral and the house gave evidences of having been there for many years. Cut in the rocks northeast of the house we found a date "1818". Lichens grew thickly on the rocks comprising the walls of the habitation. The corral had been constructed in a rather peculiar

manner. Stone pillars had been built about ten feet apart and poles had evidently been laid between these pillars, the latter had either tumbled to the ground or been carried away by later settlers. Sr. Jose Maria Andreda and his family occupy this place at the present time, their ranch house stands near the river, and I was informed that this spot was healthier than other places further up stream. Sr. Andreda was the one who directed me to the ruins mentioned. The corral *at* present is screened in a tangle of mesquites.

Sonora is full of such abandoned places and one is always wondering about them. Since Dolores was abandoned by the few remaining families prior to 1762, might this not have been the site selected by them? Or was this one of the cattle ranch outposts of the mission proper? Why and whence the name Santa Clara?

On this place I found several small fragments of blue and white majolica ware of the late 18th century, which seems to lend favor to the occupation in 1762 or thereabouts.

On the morning of October 29 we continued on to Dolores. We found the whole site a mass of tangled brush and scattered walls, Of the old church not a standing wall remains. In fact we debated as to the actual site itself. There are two or three places where such buildings might have stood, if one is to judge by the width of the foundations discernible at several points.

From Kino's meager accounts of the building of Dolores we know that at least two churches stood here in his own time, and how many more afterwards it is difficult to decide.

Personally, I believe the old church stood well out on the rocky point and faced south west, looking down the valley. This is the traditional spot, and here in 1911 Dr. Bolton found standing walls. The church was of stone, but the rancheros of the region have hauled it away for building purposes. One piece of worked stone, which might well have been part of a carved pediment for a small pillar, surmounts a grave in the confines of the old quadrangle, further out on the point toward the southwest, where the terrain is more open, and freer from rocks.

It may be that a later edifice stood near the quadrangle, which is traced only by the broad mounds of adobe, and stone foundations visible on the surface.

The truth of Dolores will never be known until the trowel and brush of the archaeologist is brought into play. The same is true of any of the other sites. Dolores in its prime was a huge, complex establishment. The church, living quarters, shops, store rooms, etc., covered several acres of ground, and there may be more ruins within the surrounding area which we did not have time to locate. Somewhere near at hand must be the remnants of the old mission gardens. Probably these are along the river. One can easily understand why this was chosen as a site for a mission. It had all the requisites of a successful mission, a running stream, extensive, flat river bottomlands, timber along the lowlands, stone for building purposes, an elevated site capable of defense from invaders, and a large indigenous populati

From our point of view, we learned very little at this site. No one could do justice to it, or make accurate deductions, without first excavating within the confines of the foundations and the mounded remains seen on every hand. George took a number of views for future use in constructing dioramas.

LOS SANTOS REYES DE CUCURPE

This was the last mission visited by our party, aside from a brief inspection of the adobe mounds that were Imuris.

There was a mission establishment at Cucurpe in 1650, thirty years before Kino established Dolores. In fact it was from Cucurpe that Kino plunged into the northern wilderness, and at that time Cucurpe was the northernmost outpost of Spanish culture in Sonora.

The country round about was rich with minerals, and settlers penetrated the region seeking the precious metals. In 1678 there was a village of one hundred and seventy families of Spanish and gente de razon, or better class people aside from the Indians. However, by 1770 only five Indian families remained at this old place.

The Indians in this part of the San Miguel valley were of the Opata and Eudebe tribes, and seemingly allied with the natives of the Mission Opodepe in customs and language.

We left Dolores and proceeded directly south to Cucurpe. The church stands in a half-finished condition on top of the hill overlooking the modern town of Cucurpe. The old pueblo, built around the large plaza upon which the incompleted stone church faces, has been practically abandoned for about fourteen years. At the time a severe rain storm caused most of the old adobe houses to crumble away and now, only half a dozen are habitable, and the road which once led up the slope from the southwest is so badly rutted that wheeled vehicles cannot traverse it.

At Cucurpe as all other sites we found many evidences of reconstruction.

The present church is built of huge blocks of volcanic tuff, burned brick, and adobe. Seemingly this structure was never finished. Yet even in its incomplete state it is an imposing edifice, and if it is ever finished, as we heard the incorrect rumor that some day it might be, it would make a fine looking church. The residents of the pueblo have managed to keep parts of the adobe walls in repair, but in times past, other residents of the same village have helped themselves freely to the cut stone sills which once were a part of this chapel.

There have been three church structures at Cucurpe. The first, and the oldest, was of adobe, and stood to the west and slightly to the rear of the present building. Only fragments of this mission now remain and they have been incorporated in the ruined houses of the natives. Here and there may be seen stray items such as a crude baptismal font, bits of worked stone built into residential walls, and the ever present stone foundations marking the site of the original church.

Mission number two stands to the east of the unfinished stone church. This was a long, adobe, building with the main entrances facing south, as did the entrances of all three churches.

This adobe building was apparently the one described by a writer in 1772. It was well decorated, had four altars, and equipped with pictures and banners.

"It is well built of earth with a roof of good wood and grass, four chalices in the sacristy, a tall crucifix, four candle sticks and a lamp, all of silver, and plenty of other furnishings. The priest's home forms an interior patio with the church and is a huge and good house, made of adobe, and although it is new, some parts of it are going to ruin. The town of the Indians forms a plaza with the church and houses of the missionary; some are made of adobes but very low in appearance, not the regular height of a man, generally very poorly furnished and temporary in nature. In times past they have neglected their fields for pleasures, there were 296 souls at the pueblo then."

A site purporting to be the old Indian rancheria of Cucurpe was pointed out to me as existing on a hill 1½ miles south of the present town of Cucurpe, was on the east side of the valley. The townspeople

also assert the old neophyte horses, attached to the mission, were in line with the second church and extended further to the east. There were some ruins in that direction, but I did not examine them. So many changes have taken place here that it would take time and patience and some excavation to arrive at any reasonably accurate conclusion.

Of cultural objects pertaining to the church proper there were none save a crudely carved baptismal font in the repaired sacristy room of the store church which was in use apparently prior to the Federal order to close the churches. There were no chests, images, vestments, etc., only a few tawdry remnants of processional canopies, poles, crucifix, etc., decidedly modern.

SUMMARY AND RECOMMENDATIONS

It will be seen by this report that whereas the architectural remains of the Sonora mission chain will undoubtedly be of value in making intimate studies of Tumacacori mission, whether for restoration of certain units or in building a complete model of the same, the cultural objects necessary for the exposition of mission life in the 17th and 18th centuries are lacking.

Aside from those listed at San Ignacio, Pitiquito and Tubutama, we found none that were authentic.

There are many archaeological sites in the vicinity of the missions, easily reached and worth studying. These should be considered in connection with the background of the missions.

From all available information it would seem that if more definite data are to be obtained on the material culture of the Spanish period of the 17th and 18th centuries, it will be necessary to make a trip to the Valley of Mexico where collections of furniture, clothing, arms, household utensils, horse trappings, etc., are preserved in the Museo Nacional, and in the cities adjacent to the capital. In the archives in the City of Mexico are documents, plans, pictures, etc., pertaining to the periods mentioned. Such a study, if well done, would not only provide information for the Tumacacori museum studies, but also aid in developing the Spanish-Mexican background of furniture museums and exhibits in New Mexico, Texas, Missouri and Louisiana, and California.

Considering all phases of the preparation of museum exhibits for any of the foregoing states, the following subjects must be studied in order that accurate historical reconstructions be made, either in pictures, maps, dioramas, replicas or identification of original specimens found on the ground.

(a) costume
(b) household utensils and tools
(c) arms
(d) horses and horse trappings
(e) ranchos and ranch life
(f) contemporary accounts, oil paintings
(g) sketches, journals, etc.
(h) maps

Likewise a consideration should be given to cultural material of Spanish America now in certain California and New Mexican collections. It must always be borne in mind that when dealing with the various phases of Spain in America, particularly in the southwest, it is not necessary to consider only the items of Spanish manufacture found in that particular region as being the sole criteria upon which to base reconstruction of the life of the people. We must go further than

also against the old concrete bridge, attached to the [illegible], were in line with the second church and [illegible] to the east. There were some [illegible] in this direction, but I did not examine them. [illegible]

Of [illegible] were [illegible]. These were [illegible], etc., with a few [illegible], etc., [illegible].

SUMMARY AND RECOMMENDATIONS

It will be seen by this report that although the [illegible] remains of the [illegible] will probably be of value in [illegible] in the 16th and 17th centuries are lacking.

Aside from those listed at [illegible], we found none that were [illegible].

There are many [illegible] sites in the vicinity of the [illegible]. These should be [illegible] in connection with the [illegible].

From all available information it would seem that if any light is to be obtained on the material culture of the [illegible] period of the 16th and 17th centuries, it will be necessary to make a [illegible] in the [illegible], etc. [illegible]

Considering all [illegible], the following [illegible] found in the [illegible]:

(1) [illegible]
(2) [illegible]
(3) [illegible]
(4) [illegible]
(5) [illegible]
(6) [illegible]
(7) [illegible]
(8) [illegible], etc.
(9) [illegible]

[illegible]

that. The cultural level of the Spanish frontier was about equal; that is, this holds true as far as costume, arms, certain portions of horse trappings, table ware, household utensils, etc. are concerned. There are differences in furniture, for example, 17th century styles of Spanish American furniture clung to the Rio Grande settlements while the late 18th century Spanish settlements in California and Arizona were not affected. On the other hand, judging by documentary evidence as well as the actual physical remains, the use of glazed wares known as Majolica and "Talavera" ware made in Puebla, Mexico, were commonly used by the inhabitants of Sonora, particularly at the missions, as well as on the tables of the padres in the California chain and likewise along the Rio Grande. Consequently, a study of the output of the Puebla majolica factories of the 17th and 18th centuries should provide an excellent cross section of the types of the glazed wares used in Sonora, Arizona, New Mexico, and California.

I cite these items as examples of types of studies that should be made on the ground in the Valley of Mexico, and in the city of Puebla, Mexico; in Queretaro, headquarters of the Franciscan missions, and elsewhere in Mexico before any intelligent or adequate historical representations of Spanish-Mexican frontier life can be made.

BIBLIOGRAPHY

BANCROFT, H. H. — History of Arizona and New Mexico, 1530-1888, Vol. XII. of the works. San Francisco, The History Company.

BARBER, Edwin Atlee — The Maiolica of Mexico, Pennsylvania Museum and School of Industrial Art, Philadelphia, 1908.

BEALS, Ralph — The Comparative Ethnology of Northern Mexico Before 1750, University of California, 1932.

Material Culture of the Pima, Papago and Western Apache, National Park Service, Field Division of Education, Berkeley, 1934. (mimeographed)

Preliminary Report on the Ethnography of the Southwest, N.P.S., Berkeley, 1935. (Mimeographed)

BOLTON, Herbert E. — Kino's Historical Memoir of the Pimeria Alta, by Father Eusebio Francisco Kino. (Supplemented by conversation with Bolton concerning certain items in the text which I have noted in the body of my report. A.M.)

Anza's California Expeditions, vols. I. and II., 1932.

BRAND, Donald D. — The Distribution of Pottery Types in Northwest Mexico, American Anthropologist Vol. 37, No. 2, Pt. 1, April-June, 1935.

DUFFIELD, Prentice — The Arizona-Sonora Chain of Missions, The Architect and Engineer, July-December 1921, San Francisco

ENGELHARDT, Zephyrin Fr. — The Franciscans in Arizona, Harbor Springs, Mich., 1899.

EWING, Charles Russell — The Pima Uprising 1751-1752, thesis University of California, May, 1934.

FERNANDEZ, Lamberto — Datos Historicos sobre los Filibusteros de 1857 en Sonora, Sonora, Mex. Mexico City, 1926.

BIBLIOGRAPHY

HODGE, F. W. — Handbook of the American Indian, Vol. I, Washington, D. C., 1907.

LOCKWOOD, Frank C. — Story of the Spanish Missions of the Middle Southwest, Santa Ana, California, 1934.

RENSCH, H. E. C. — Chronology for Tumacacori National Monument, N. P. S. Field Division of Educatic Berkeley, California, 1934. (Mimeographec

VELARDE, Luis Padre — Relacion of the Pimeria Alta, Translated and edited by Rufus Kay Wyllys, New Mexic Historical Review, v. VII,, No. 2. (April 1931)

MISCELLANEOUS — Documentos para la Historia de Sonora, Series 3, Mexico, 1853-1857, pp. 607-617 -637; 836-842.

Libros de Bautismo y de Entierros, 1822-1836, Santiago de Cocospera, mss., Bancroft Library, University of California.

HODGE, F. W.

Handbook of the American Indian, Vol. I, Washington, D. C., 1907.

LOOKWOOD, Frank C.

Story of the Spanish Missions of the Mid-le Southwest, Santa Ana, California, 1934.

RENSCH, H. E. G.

Chronology for Transcontinental Communication, M. F. A. Field Division of Education, Berkeley, California, 1934. (Mimeographed)

VILLAROS, Luis Teste

Relation of the Tinaria Alta, Translated and edited by Fulton Day Tylia, New Londo Historical Review, v. VII, No. 4. (April 1931)

MISCELLANEOUS

Documents para la Historia de Sonora, Series 3, Mexico, 1-53-1857, pp. 647-17 -657; 685-642.

Libros de Gastos y Noticias, 1832-1836, Archivo de Concepcion, mss., Mission Library, University of California.

SAN ANTONIO DE OQUITOA

We went from the town of Altar to the ranch of Mr. Roy Dutting, about five miles east of the town. Here we made our headquarters during our sojourn in and around the Altar valley.

Our next objective, the mission church of Oquitoa, we visited October 20. Here we have a Franciscan church of burned brick and adobe standing on a hill overlooking the sleepy little pueblo of Oquitoa.

Oquitoa was designed as a visita of San Francisco de Atil in 1768 when the Franciscans took over the missionary work in the area. However, no church was listed at that point nor was there any house for the priest. Hence, the present structure seemingly must date well after the beginning of the Franciscan occupation.

At present it is a charming little church. It faces south and when in its hey day of activity must have presented a lively scene. Aside from the chapel there were a number of neophytes' houses. These were adobe structures which stood to the south directly in front of the church and occupied the relatively smooth, slightly sloping top of a long point of land. Now those quarters are marked only by mounds of earth and scattered potsherds.

Surrounding the church are many tombs. These are curiously elaborate affairs built in the form of small mission-like cubicles, bearing domes, towers and crosses. From a distance the hill top takes on the appearance of a small Oriental city gleaming white in the sun, and one almost expects to see the place swarming with inhabitants. Hanging on the crosses of the graves are wreaths of broken glass. These are manufactured by certain men in Oquitoa. The glass is obtained from old colored bottles. It is first burned until it cracks into small pieces. This friable glass is not jagged and the peculiar crackled effect obtained in heating adds to the appearance of the funerary offerings making the coronas, as they are termed by the Mexicans, glisten in the sun like so many diadems of diamonds, rubies and emeralds.

The church itself is very simple, benefitting in aspect that of a visita. The facade is, or rather has been so, ornate but time and the elements have played havoc with the stucco and painted designs. In recent years the church has undergone repairs and reconstruction. How much of this type of work has been carried on since it was first built is difficult to determine. About 1910 the nave roof was renewed and one or two of the rafters replaced but the remainder of the vigas (rafters) and the corbels seem to be original. In 1929 the present choir loft was built. Two side windows were also cut in the church at the same time. In the baptistry is a baptismal font of hammered copper supported on a carved wooden stand. This was unique in that all the other baptismal fonts were of carved stone and copper.

In this same room are also six oil paintings of the crucifixion; these are 71 by 38 inches and represent the following scenes: the Via Dolorosa, placing the crown of thorns on Christ's forehead, the scourging of Christ, the crucifixion with the Roman soldier plunging the spear in Christ's body, the descent from the

cross; and placing the body in the tomb. These are fairly well executed by Mexican artists which was done sometime during the first three decades of the 18th century, judging by the costuming of one or two of the figures.

In the sacristy which adjoins the baptistry are four old rifles. One is a Springfield tapelock of 1855; two are Berlin and Remington single shot rifles patented in 1870, and the fourth is a percussion lock musket made in Danzig, Germany, which has been altered from flint to percussion lock.

Other than three small bronze bells there were no items pertaining to church rituals in either the baptistry or the sacristy.

We returned the key to the custodian, Ramon Figueroa, who lives in a small adobe hut southeast of the main part of Oquitoa. Here we saw one of the rawhide sacks known as a tenate. Such containers have been manufactured in Mexico for several centuries and must have been in use at the time the northern part of Sonora was being colonized. Figueroa also had a small bowl of broken glass fragments prepared for corona making. However, he stated that he only prepared the glass, and the actual labor of making the wreaths was done by another man in town. A water wheel in Oquitoa supplies the power for the flour mill. At times the same power turns a small ore reducing mill.

The present mill does not seem to be very old. Apparently however, the town of Oquitoa has long been a milling center. During the 1860's two flour mills were located here and from these establishments came the coarse, poorly ground flour which supplied the U. S. Federal forces in Arizona, then stationed at Tucson, Tubac, etc.

SAN FRANCISCO de ATI

This mission of which Oquitoa was a visita is some five miles north of Oquitoa. It is mentioned as having a very small poor church in 1768 when Fr. Jose Soler, the first Franciscan, came to take charge.

The old structure is now in a sorry state and within a few years more will be a formless mass of heated walls. The ruins of the ancient church stands alongside the more modern structure.

We arrived at the town of Atil at 4:30 p. m. Sunday, October 20, 1935, for a cursory examination of this chapel. The church faces east and is within the limits of the town.

The fallen walls prevented any accurate deductions and the fact that the building has been patched and rebuilt in times past made the task of determining the physical aspect quite difficult. An example of this rebuilding was evident in the ruins of the main altar. Originally the interior of the chapel had been plastered with a thin coat of poor plaster and the west end had been painted red. This red plaster had been scored into squares and outline figures of fruit, birds, etc. were crudely scratched on this imitation tiled background. Later, the main altar of adobe bricks was built across the end of the church hiding this original decoration.

Attached is a sketch of the ground plan of the church. It is not drawn to scale and includes the ruins of the chapel and part of the priest's quarters. In modern times, the present occupants of the village have altered the old church, walling up arches and making storerooms of some of the old living rooms.

Alongside the ancient chapel on the east stands the modern church. This is an uninteresting building and since it had no part in our studies we did not examine it. I was informed that the old cemetery was in front and on the side of this later building; in other words, it would appear that the new church was built within the confines of the burial ground.

As may be noted in the sketch, the line of building formerly extended to the east and south of the old church. On the west side was a walled enclosure. This church originally had a bell gable which was reached by a series of steps on the west side. This gable stood until the past year or so. It has now entirely disappeared and the bells are suspended in front of the modern church. These are fairly new bells, having been cast in 1903.

SANTA TERESA

Within a few miles northeast of Atil, on the west side of the road stands the ruins of Santa Teresa. This was originally a visita of Tubutama. We visited this site twice; once on Sunday, October 10, and again on October 24.

The church proper, which faces southeast, was larger than that of Atil and in the course of years the establishment extended in a rambling fashion north and east, and southeast. Northeast of the chapel were a series of rooms which were evidently part of the cloister, or priest's quarters. Southeast, in a long row, were the simpler, more flimsy habitations of the neophytes. When the Franciscans took over the Jesuit property in 1768 the church at Santa Teresa was noted as being small and devoid of ornaments and having a house for the father. The Indian population at that time was fifty-two souls.

In 1751-1752 occurred the Pima uprising. Santa Teresa was the headquarters of Sebastian, one of the Indian leaders, who, with about 1,000 rebel tribesmen fired the church and house. Consequently, this picturesque station, now isolated and partially hidden by bursh and cactus was at one time the scene of thrilling activity.

Evidence of Apache raids are yet to be seen in the presence of small arrow heads found in the ruins.

The chapel was built in the form of an L, the adobe bricks of which it was constructed were relatively thin, while the mud mortar with which they were cemented was thicker than the bricks themselves.

The sketch map indicates the general plan of the mission. Owing to the almost complete disintegration of the neophytes' quarters it was not possible to obtain accurate ground plans of these houses. Even the thicker walls of the convento were difficult to trace with any degree of accuracy. The usual

amount of broken pottery, stone implements, and fragmentary remains of European cultural material were scattered in profusion about this place. Here we made a type collection of artifacts, as we did at those sites where we could feel fairly sure that the later mid-19th century specimens did not appear. No collection was made at Atil for the simple reason that there was too much surface debris of the 19th and 20th century in evidence.

In the brush, across the road from the mission, in the direction of the Altar river, which is but a few rods eastward from the old church, scrawny Indian hut sites, which are apparently more ancient than those adjacent to the chapel proper. The whole area here gives definite evidence of having supported a large population.

In fact, the entire Altar valley seems to have been well occupied by the Indians. In the low range of hills opposite the town of Oquitoa we saw the terraces of trincheras. Broken pottery and artifacts may be picked up along this valley at many places. The region is well worth an intensive archeological survey. While the Papago pottery seems to predominate, there are many sherds of the ware commonly associated with the trincheras.

Similarly, the stone artifacts indicate a mixture of cultures. The small Apache arrow heads mingle with larger stone blades, and Papago arrow straighteners. The pot sherds show different degrees of weathering, and in many cases the camp sites are only discernible by the scattered fragments of pottery, broken fire stones, flakes, etc. The houses in such instances have long since disappeared.

We heard a rumor of a mill that had at one time belonged to Santa Teresa which was on the river southeast of the church. We visited this place but found it to be a mill erected sometime during the 1850's or 1860's, now in ruins and the buildings occupied by a poor Mexican family. However, at this point are many old fruit and palm trees, the latter grow very tall, and are visible over the dense foliage of the river bottom. The Altar river which is an intermittent stream is dry along this particular stretch. There may be other fragmentary ruins of buildings once a part of the mission establishment along the river, but we did not have time to search for them. It must be remembered that in all cases where these missions were established, there must have been outlying establishments of one kind or another depending upon the resources of that particular mission. Such industries as milling, tanning, brick making, lime burning, etc., were carried on. We found one small plastered vat almost directly in front of the living quarters of the priest at Santa Teresa, which may have been simply a small water reservoir. It was 7'2" by 8'7" the depth uncertain as we did not have time to excavate it.

Neustra Senora De La Concepsion de Caborca

We determined to inspect this church before attempting Pitiquito or Tubutama, reserving those places for the last. Accordingly we obtained a letter of introduction from Sr. Nacobar to Sr. Rafael Celaya, presidente of the ayuntamiento at Caborca on October 21, and went direct to the town.

The present town of Caborca is modern in aspect as far as any of the towns may be said to be modern. Here is concentrated all of the activities of the area. The older pueblo which once clustered around the mission church is a short distance to the east, is slowly decaying on the banks of the river which will ultimately engulf the crumbling adobes as it has gnawed away the rear portion of the splendid edifices erected by the Franciscans.

The mission was originally founded by Fr. Francisco Xavier Saeta in October, 1694. He was slain by rebellious Indians of Tubutama, Oquitoa and Santa Teresa, early in the morning of April 2, 1695. Caborca seemed fated to play a bloody role in the history of the Western Altar district. On November 20, 1751, when the Pima rebels swept down the valley with fire and arrows, Father Tomas Tello fell a victim to their fury. Still later, in 1857, the church was the scene of violent fighting when the townspeople of Caborca were driven into the old mission by a band of American filibusters headed by Henry Crabb. The action ended when Crabb and his men were smoked out of their adobe house-fort opposite the church, and surrendered to the Mexicans. The prisoners were promptly executed.

The present structure is Franciscan in origin. In 1772 Caborca had two visitas, that of San Antonio del Pitiquia and San Juan del Bissnig.

At the time floods menaced the structure, and in 1771 the padres moved back from the river to a point on the wide plain, hoping to build in safety. The lands were excellent for cultivation of many types of crops. Cotton was raised here as early as 1740, which the Indians wove into garments (Noticias de la Pimeria del ano de 1740. pp. 332-342, by Jacobo Sedelmair, written at Tubutama Mar. 30, 1747)

In 1772 cotton was still an important crop but other items raised here were, wheat, corn, barley, etc. There were extensive gardens in which grew quinces, pomegranates, peaches, lemons, oranges and grapes. At that time the church was well decorated. The sacristy had two silver chalices, silver vinajeras and a silver shell for baptism. The Indian population numbered 634.

Today, the church is a sorry wreck. Fully half of the fine structure, which is solidly built of stone and burned brick, and well plastered, inside and out, having a handsome facade, and two sturdy bell towers, has been destroyed by the river. The stream which at certain times of the year flows down the sandy bed has eaten away the main altar and all of the structures that once stood in the rear of the building. The remainder of the nave which is in good condition has been walled up at the east end and now serves for a school. When we were there, a young schoolmaster had some forty-eight children under his care. The equipment was most meagre, and the doctrines being taught were strictly in

accord with the communistic teachings of the agrarian party now in control of the nation. One Mexican bystander confidentially told me in a bitter whisper, "They teach the children 'No hay Dios'" (there is no God). The text book is patterned somewhat upon the Russian theories.

Jalpa must have been an elaborately decorated structure prior to the flood, as obtained copies of photographs made by a Mexican photographer, February 2, 1905 on the occasion of the celebration of the patron saint's day and these pictures show the structure prior to the destruction by the water.

The interior was evidently lavishly decorated with painted designs, but these, with few exceptions have been whitewashed. This redecoration was probably done sometime late in the 18th, or early in the 19th century. Likewise a certain amount of reconstruction must have been carried on at the same time. This was evidenced in the alterations made on the side altars and in the niches on either side of the large crucifix in the apse above the north side altar. In the latter cases the niches had been walled solidly, and whitewashed. Most of the elaborate color work had been concealed under a layer of whitewash.

Even in the main portion of the church this effacement of designs has been carried out. There are a few exceptions. In the center of the first dome of the nave is a modeled floral motif which is painted a copper green. It would appear that the older painted designs were done in brick red, copper green and blue, steel grey blue and [illegible] pink, while the later painting was done in vivid cobalt blue. Here and there the various colors peep through the whitewash and by careful scaling we were able to obtain our first hand knowledge of this change in decoration.

The church was originally in a cruciform shape and was probably one of the most elaborate of the chain, the only structures comparable were San Javier del Bac and Tumacacori. In appearance, Jalpa more closely resembles the plan of San Javier save that the facade is not as ornate. Tubutama while more [illegible] inside at present has lost a great deal of the elaborate work that once adorned the exterior of the facade.

Jalpa faces almost due west, fronting on the dying remnants of the old pueblo where a few Yaqui could yet live in defiance of their more progressive brethren who have moved further to the west and northwest.

On the north side of the church is part of an arched corridor which at one time was the portico of a row of rooms which probably gave on an inner garden. In line with the front of the church and extending north, along what is now the bank of the river, but which in ancient times must have been a fertile plain, were long rows of adobe structures. These may have been the houses of the neophytes or possibly work shops. The sites of these structures are now marked by low, badly eroded mounds, and stone foundations, visible where the encroaching river has eaten away the earth.

Under the arches of the convento, as it was known, along the south wall of the corridor was a bench about 18" high, well plastered and tinted red. To the left of one of the doorways a similar bench about 23" high formerly stood but this has been

destroyed. These features are mentioned in that they tally with the beds which were along the inner corridor of the patio of Tumacacori on the east side of the mission church. These plastered beds were uncovered during the course of excavation in 1934-35 and have since been covered with earth.

It was in this convento of the north side of Caborca that the women and children took refuge from the American filibusteros the first part of April, 1857. The Mexican version of the expedition attributes the failure of Crabb's attempt to blow up the convento to the miraculous appearance of the patron saint of the church.

We made as many observations on all parts of the building as our limited time permitted. From the bell towers one obtains a fine view of the surrounding terrain. These towers are interesting, and narrow stairways leading to them, more so. The old tiles on the steps are so badly worn that unless one is careful, one is likely to stumble and fall. The sides of the passages are polished by the contact with the countless numbers of persons who have climbed to the towers. Here again one notes a similarity to the approach to the towers that one finds in San Javier although these stairs are longer and have more arched passages.

In the lower part of the north tower are four bells. Two of these are lying on the floor of the tower; two are hanging crooked, and almost useless. One pair of these were cast in 1806; one in 1816, and the fourth has no date on it.

The oldest one bears this inscription on the rim.

Evidently these bells were rung from below, outside the tower. This is graphically shown by the deep narrow slots abraded in the burned brick of the outer edge of the facing of the bell tower arches where the ropes have slowly cut their way during the course of the years.

Scrawled on the inner walls of the twers are many names. In the south tower the oldest is"Juan Nicketson, 1844". Another "party" consists of "D. F. Harvey, J. V. Wiggle, J. F. Gabriel, and J. Speedy, 1856". There were many visitors here in the 1870s, 1880s, and late 1890s. On February 2, 1892, a holy feast was held at Caborca and among those who attended at that time were Albero and F. Beacher. These men were also there Dec. 2, 1898. Alberto Beacher was the artist now living in Altar, who drew the ground plan and side elevation of the old church at Altar, since destroyed.

The facade of the mission is pitted in places with bullet marks. These are the auto records of the siege of April, 1857. The plaster around the windows in the southern bell tower is badly chipped, and under one window (inside the tower) a loop hole, poured out by one of the defenders of the mission, is still visible.

There was no original furniture in the church. All of this has long since disappeared.

SAN DIEGO DEL PITIQUITO

On Tuesday, Oct. 12, 1938, we left Altar to make observations at this mission.

Pitiquito was founded by Kino sometime prior to October, 1694. However, it was never of much importance, structurally speaking, until after the Franciscan succession of the Jesuit field. This mission was formerly a rancheria of Pitiqui attached to Caborca and in the first half of the 18th century was known as the Natividad del Senor del pitiqui (Documentes Para La Historia de Mexico, pp. 617-637) At that time, some 98 families lived there as well as sixty-seven widows and fifty-four orphans. In 1768, when the Franciscans took over the churches, the place was known as San Antonio Pitiqui, and there was neither church nor house for the priest at that place. Fr. Juan Diaz was the first Franciscan at this post, 1768-1773. The present brick structure was built sometime between 1768 and 1770.

We arrived at the town and presented a note of introduction from Mr. Roy Cutting to his friend Manuel Tiznado, presidente of the pueblo. Mr. Tiznado was a butcher, but an agreeable man withal. He assigned Francisco Bouillas, the comandante de policia, to our party, and Mr. Bouillas took the key, opened the church for us, and stayed with us, giving such information as he had concerning the church and town.

The temple stands on a small elevation facing west. The modern town sprawls at the base of the hills in the rear of the church, and the scattered houses of the older pueblo lie in front of the structure. According to Bouillas, local tradition claims that the town takes its name from a famous Indian chieftan who once lived in the rancheria where the church was built. This leader, known as Piti or Pitic, fought against the Spaniards but was ultimately whipped in battle on a small fortified peak west of the church known as Sierra Quisman. On this hill are the remnants of stone walls. Another Indian chief identified with the history of this region was known as Camado, and a peak immediately west of the town bears his name. North of the church, ringing the horizon, are the low hills comprising of the Sierra de Pitiquito. Here, in the western end, where the hills begin to diminish somewhat, a fight occurred on April 11, 1911, between the forces of Francisco Reina, Madero adherents, and a rebel band. The Maderistas won, and three or four slain soldiers were buried in the modern cemetery northwest of the town.

Although this church was constructed in the 18th century, there have been some "improvements" made at various times.

It is solidly built edifice of stone and burned brick, and in some respects differs from the other churches we visited. For example, the interior work and is solid, massive construction, especially the pulpit and the lectern. These are built of pillars and arches and give an air of austere frigidity to the place not encountered in the other buildings.

In 1957, a new wooden floor was laid, the broad, stone, and concrete steps, and platform leading to the front entrance was constructed, a new brick bell gable was added to the roof, and two bells, cast by F. Romero, (this man was probably of the Romero family, who lived in Tubutama, where the bells were more than likely cast.)

At this same period, the main alter was reconstructed, a plain wooden affair being built over the original brick and

and plaster, Steel ed wi dows were also i stalled, and later, electric lights were added.

The original main doors have long since disappeared, and m ch of the other wood work is comparatively modern.

Of the origi al fur ishings, there are but a few remnants. In the small dark room at the base of the bell tower stairs, on the north side of the church, we found a small, 18th century "arca", or wooden chest. This was smaller than the one in the baptistry of San Ignacio, but of the same type. The iron hasp and ornamental iron lock escutcheon were gone. At one time this sheet had been covered with black leather, but even this had rotted away, and had been pulled off, leaving only a few hard, dry scraps nailed along the sides of the body and lid. The chest was 34½" long, 13½" wide, and 14" high.

In the sacristy was a large, old, 18th century cupboard, or chest, with two panelled doors. This stood 43½ inches high, was30½ inches wide and 58 inches long.

These two objects were the only items visible pertaining to the days of the founding of this building. There were rumors of other pieces of furniture and fittings, which had been taken from the Mission, and were said to be in the possession of a pious lady of the town, but I could not obtain her name.

On the south side of the church was the convento. Here is the same domed, arched, pretice, or colonnade as that found at Caborca, and which probably stood on the inner side of the eastern patio at Tumacacori. A portion of the old rooms are here, in ruinous condition, but the main portions of the convento are gone and only the heavy stone foundations are visible.

As One of the side doors of Pitiquito are two paper seals typical of those pasted on the doors of the churches by the federal government when the religious structures were closed by governmental order. The seals, ordinary strips of bond paper, bear these words typewritten on them, "Pitiquito, ere. 15, de 1934 sellado por orden Superior."

Our preliminary survey of Pitiquito was soon finished, and we decided to push on to our next objective.

San José del Pitiquito

This was a visita of Caborca and is sometimes known as San Valentin or plain Pitiquito. Another name was Nuestra Senor de Populo. This mission was apparently flourishing in 1768. In 1772, it was described as being 6 leagues west of Caborca and had a church and house for the priest, but the former was unadorned and the latter unfurnished.

This visita was the headquarters of some of the Pima rebels who fled here after 1751, and in the beginning of 1771, after more trouble, some of the population fled to the hills. It seems always to have been the center for troublesome spirits and,

SAN ANTONIO DE OQUITOA

We went from the town of Altar to the ranch of Mr. Roy Cutting about five miles east of the town. Here we made our headquarters during our sojourn in and around the Altar valley.

Our next objective, the mission church of Oquitoa, we visited October 20. Here we have a Franciscan church of burned brick and adobe standing on a hill overlooking the sleepy little pueblo of Oquitoa.

Oquitoa was designed as a visita of San Francisco de Atil in 1768 when the Franciscans took over the missionary work in Sonora. However, no church was listed at that point nor was there any house for the priest. Hence, the present structure seemingly must date well after the beginning of the Franciscan occupation.

At present it is a charming little church. It faces south and when in its hey day of activity must have presented a lively scene. Aside from the chapel there were a number of neophytes' houses. These were adobe structures which stood to the south directl in front of the church and occupied the relatively smooth, slightly sloping top of a long point of land. Now those quarters are marked only by mounds of earth and scattered potsherds.

Surrounding the church are many tombs. These are curiously elaborate affairs built in the form of small mission-like cubicles, bearing domes, towers and crosses. From a distance the hill top takes on the appearance of a small Oriental city gleaming white in the sun, and one almost expects to see the place swarming with inhabitants. Hanging on the crosses ofthe graves are wreaths of broken glass. These are manufactured by certain men in Oquitoa. The glass is obtained from old colored bottles. It is first burned until it cracks into small pieces. This friable glass is not jagged and the peculiar crackled effect obtained in heating adds to the appearance of the funerary offerings making the coronas, as they are termed by the Mexicans, glisten in the sun like so many diadems of diamonds, rubies and emeralds.

The church itself is very simple, benefitting in aspect that of a visita. The facade is, or rather has been somewhate ornate but time and the elements have played havoc with the stucco and painted designs. In recent years the church has undergone repairs and reconstruction. How much of this type of work has been carried on since it was first built is difficult to determine. About 1920 the cane roof was renewed and one or two of the rafters replaced but the remainder of the vigas (rafters) and the corbels seem to be original. In 1929 the present choir loft was built. Two side windows were also cut in the church at the same time. In the baptistry is a baptismal font of hammered copper supported on a carved wooden stand. This was unique in that all the other baptismal fonts were of carved stone and copper.

In this same room are also six oil paintings of the crucifixion; these are 31 by 38 inches and represent the following scenes: the Via Dolorosa, placing the crown of thorns on Christ's forehead, the scourging of Christ, the crucifixion with the Roman soldier plunging the spear in Christ's body, the descent from the

cross; and placing the body in the tomb. These are fairly well executed by Mexican artists which was done sometime during the first three decades of the 18th century, judging by the costuming of one or two of the figures.

In the sacristy which adjoins the baptistry are four old rifles. One is a Springfield tapelock of 1855; two are Marlin and Remington single shot rifles patented in 1870, and the fourth is a percussion lock musket made in Danzig, Germany, which has been altered from flint to percussion lock.

Other than three small bronze bells there were no items pertaining to church rituals in either the baptistry or the sacristy.

We returned the key to the custodian, Ramon Figueroa, who lives in a small adobe hut southeast of the main part of Oquitoa. Here we saw one of the rawhide sacks known as a tănate. Such containers have been manufactured in Mexico for several centuries and must have been in use at the time the northern part of Sonora was being colonized. Figueroa also had a small bowl of broken glass fragments prepared for corona making. However, he stated that he only prepared the glass, and the actual labor of making the weaths was done by another man in town. A water wheel in Oquitoa supplies the power for the flour mill. At times the same power turns a small ore reducing mill.

The present mill does not seem to be very old. Apparently however, the town of Oquitoa has long been a milling center. During the 1860's two flour mills were located here and from these establishments came the coarse, poorly ground flour which supplied the U. S. Federal forces in Arizona, then stationed at Tucson, Tubac, etc.

SAN FRANCISCO de ATI

This mission of which Oquitoa was a visita is some five miles north of Oquitoa. It is mentioned as having a very small poor church in 1768 when Fr. Jose Soler, the first Franciscan, came to take charge.

The old structure is now in a sorry state and within a few years more will be a formless mass of melted walls. The ruins of the ancient church stands alongside the more modern structure.

We arrived at the town of Atil at 4:30 p. m. Sunday, October 20, 1935, for a cursory examination of this chapel. The church faces east and is within the limits of the town.

The fallen walls prevented any accurate deductions and the fact that the building has been patched and rebuilt in times past made the task of determining the physical aspect quite difficult. An example of this rebuilding was evident in the ruins of the main altar. Originally the interior of the chapel had been plastered with a thin coat of poor plaster and the west end had been painted red. This red plaster had been scored into squares and outline figures of fruit, birds, etc. were crudely scratched on this imitation tiled background. Later, the main altar of adobe bricks was built across the end of the church hiding this original decoration.

Attached is a sketch of the ground plan of the church. It is not drawn to scale and includes the ruins of the chapel and part of the priest's quarters. In modern times, the present occupants of the village have altered the old church, walling up arches and making storerooms of some of the old living rooms.

Alongside the ancient chapel on the east stands the modern church. This is an uninteresting building and since it had no part in our studies we did not examine it. I was informed that the old cemetery was in front and on the side of this later building; in other words, it would appear that the new church was built withing the confines of the burial ground.

As may be noted in the sketch, the line of building formerly extended to the east and south of the old church. On the west side was a walled enclosure. This church originally had a bell gable which was reached by a series of steps on the west side. This gable stood until the past year or so. It has now entirely disappeared and the bells are suspended in front of the modern church. These are fairly new bells, having beenn cast in 1903.

SANTA TERESA

Within a few miles northeast of Atil, on the west side of the road stands the ruins of Santa Teresa. This was originally a visita of Tubutama. We visited this site twice; once on Sunday, October 20, and again on October 24.

The church proper, which faces southwest, was larger than that of Atil and in the course of years the establishment extended in a rambling fashion north and east, and southeast, Northeast of the chapel were a series of rooms which were evidently part of the cloister, or priest's quarters. Southeast, in a long row, were the simpler, more flimsy habitations of the neophytes. When the Franciscans took over the Jesuit property in 1868 the church at Santa Teresa was noted as being small and devoid of ornaments and having a house for the father. The Indian population at that time was fifty-two souls.

In 1751-1752 occurred the Pima uprising. Santa Teresa was the headquarters of Sebastian, one of the Indian leaders, who, with about 1000 rebel tribesmen fired the church and house. Consequently, this picturesque station, now isolated ant partially hidden by bursh and cactus was at one time the scene of thrilling activity.

Evidence of Apache raids are yet to be seen in the presence of small arrow heads found in the ruins.

The chapel was built in the form of an L, the adobe bricks of which it was constructed were relatively thin, while the mud mortar with which they were cemented was thicker than the bricks themselves.

The sketch map indicates the general plan of the mission. Owing to the almost complete disintegration of the neophytes quarters it was not possible to obtain accurate ground plans of these houses. Even the thicker walls of the convento were difficult to trace with any degree of accuracy. The usual

amount of broken pottery, stone implements, and fragmentary 4
remains of European cultural material were scattered in profusion about this place. Here we made a type collection of artifacts, as we did at those sites where we could feel fairly certain that the later mid-19th century specimens did not appear. No collection was made at Atil for the simple reason that there was too much surface debris of the 19th and 20th century in evidence.

In the brush, across the road from the mission, in the direction of the Altar river, which is but a few rods eastward from the old church, scrawny Indian hut sites, which are apparently more ancient than those adjacent to the chapel proper. The whole area here gives mute evidence of having supported a large population.

In fact, the entire Altar valley seems to have been well occupied by the Indians. In the low range of hills opposite the town of Oquitoa we saw the terraces of trincheras. Broken pottery and artifacts may be picked up along this valley at many places. The region is well worth an intensive archeological survey. While the Papago pottery seems to predominate, there are many sherds of the ware commonly associated with the trincheras.

Similarly, the stone artifacts indicate a mixture of cultures. The small Apache arrow heads mingle with larger stone blades, and Papago arrow straighteners. The pot sherds show dif - ferent degrees of weathering, and in many cases the camp sites are only discernible by the scattered fragments of pottery, broken fire stones, flakes, etc. The houses in such instances have long since disappeared.

We heard a rumor of a mill that had at one time belonged to Santa Teresa which was on the river southeast of the church. We visited this place but found it to be a mill erected sometime during the 1850's or 1860's, now in ruins and the buildings occupied by a poor Mexican family. However, at this point are many old fruit and palm trees, the latter grow very tall, and are visible over the dense foliage of the river bottom. The altar river which is an intermittent stream is dry along this particular stretch. There may be other fragmentary ruins of buildings once a part of the mission establishment along the river, but we did nothave time to search for them. It must be remembered that in all cases where these missions were established, there must have been outlying establishments of one kind or another depending upon the resources of that particular mission. Such industries as milling, tanning, brick making, lime burning, etc., were carried on. We found one small plastered vat almost directly in front of the living quarters of the priest at Santa Teresa, which may have been simply a small water reservoir. It was 7'2" by 8'7" the depth uncertain as we did not have time to excavate it.

Neustra Senora De La Concepsion de Caborca

We determined to inspect this church before attempting Pitiquito or Tubutama, reserving those places for the last. Accordingly we obtained a letter of introduction from Sr. Nacobar to Sr. Rafael Celaya, presidente of the ayuntamiento at Caborca on October 21, and went direct to the town.

The present town of Caborca is modern in aspect as far as any of the towns may be said to be modern. Here is concentrated all of the activities of the area. The older pueblo which once clustered around the mission church is a short distance to the east, is slowly decaying on the banks of the river which will ultimately engulf the crumbling adobes as it has gnawed away the rear portion of the splendid edifices erected by the Franciscans.

The mission was originally founded by Fr. Francisco Xavier Saeta in October, 1694. He was slain by rebellious Indians of Tubutama, Oquitoa and Santa Teresa, early in the morning of April 2, 1695. Caborca seemed fated to play a bloody role in the history of the western Altar district. On November 20, 1751, when the Pima rebels swept down the valley with fire and arrows, Father Tomas Tello fell a victim to their fury. Still later, in 1867, the church was the scene of violent fighting when the townspeople of Caborca were driven into the old mission by a band of American filibusters headed by Henry Crabb. The action ended when Crabb and his men were smoked out of their adobe house-fort opposite the church, and surrendered to the Mexicans. The prisoners were promptly executed.

The present structure is Franciscan in origin. In 1772 Caborca had two visitas, that of San Antonio del Pitiquia and San Juan del Bissnig.

At the time floods menaced the structure, and in 1771 the padres moved back from the river to a point on the wide plain, hoping to build in safety. The lands were excellent for cultivation of many types of crops. Cotton was raised here as early as 1749, which the Indians wove into garments (Noticias de la Pimeria del ano de 1740. pp. 332-342, by Jacobo Sedelmair, written at Tubutama Mar. 30, 1747)

In 1772 cotton was still an important crop but other items raised here were, wheat, corn, barley, etc. There were extensive gardens in which grew quinces, pomegranates, peaches, lemons, oranges and grapes. At that time the church was well decorated. The sacristy had two silver chalices, silver vinageras and a silver shell for baptism. The Indian population numbered 634.

Today, the church is a sorry wreck. Fully half of the fine structure, which is solidly built of stone and burned brick, and well plastered, inside and out, having a handsome facade, and two sturdy bell towers, has been destroyed by the river. The stream which at certain times of the year foams down the sandy bed had eaten away the main altar and all of the structures that once stood in the rear of the building. The remainder of the nave which is in good condition has been walled up at the east end and now serves for a school. When we were there, a young schoolmaster had some forty-eight children under his care. The equipment was most meagre, and the doctrines being taught were strictly in

accord with the communistic leanings of the Agrarian party now in control of the nation. One Mexican bystander confidentially told me in a bitter whisper, "They teach the children "no hay dies" (there is no God). The text book is pattered somewhat upon the Russian theories.

Caborca must have been an elaborately decorated structure prior to the flood, We obtained copies of photographs made by a Mexican photographer, February 2, 1893 on the occasion of the celebration of the patron saint's day and these pictures show the structure prior to the destruction by the water.

The interior was evidently lavishly decorated with painted designs, but these, with few exceptions have been whatewashed. This reornamentation was probably done sometime late in the 18th, or early in the 19th century. Likewise a certain amount of reconstruction must have been carried on at the same time. This was evidenced in the alterations made on the side altars and in the niches on wither side of the large cruciform niche above the north side altar. In the latter cases the niches had been walled solidly, and whitewashed. Most of the elaborate color work had been concealed under a layer of whitewash.

Even in the main portion of the church this effacement of designs has been carried out. There are a few exceptions. In the center of the first dome of the nave is a modeled fish motif which is painted a copper green. It would appear that the older painted designs were done in brick red, copper green and blue, steel grey blue and pink, while the later painting was done in vivid cobalt blue. Here and there the various colors peep through the whitewash and by careful scaling we were able to obtain our first hand knowledge of this change in decoration.

The church was originally in a cruciform shape and was probably one of the most elaborate of the chain, the only others comparable were San Xavier del Bac and Tubutama. In appearance, Caborca more closely resembles the plan of San Xavier save that the facade is not as ornate. Tubutama while more inside at present has lost a great deal of the gingerbread work that once adorned the exterior of the facade.

Caborca faces almost due west, fronting on the dying remnants of the old pueblo where a few hardy sould yet live in defiance of their more progressive brethern who have moved farther to the west and northwest.

On the north side of the church is part of an arched corridor which at one time was the protice of a row of rooms which probably gave on an inner garden. In line with the foot of the church and extending north, along what is now the bank of the river, but which in ancient times must have been a fertile plain, were long rows of adobe structures. These may have been the houses of the neophytes or possibly work shops. The sites of these structures are now marked by low, badly eroded mounds, and stone foundations, visible where the encroaching river has eaten away the earth.

Under the arches of the convento, as it was known, along the south wall of the corridor was a bench about 16" high, well plastered and tinted red. To the left of one of the doorways a similar bench about 23" high formerly stood but this has been

destroyed. These features are mentioned in that they talley with the benches which were along the inner corridor of the patio of Tumacacori on the east side of the mission church. These plastered benches were uncovered during the course of excavation in 1934-35 and have since been covered with earth.

It was in this convento on the north side of Caborca that the women and children took refuge from the American filibusteros the first part of April, 1857. The Mexican version of the expedition attributes the failure of Crabb's attempt to blow up the convento to the miraculous appearance of the patron saint of the church.

We made as many observations on all parts of the building as our limited time permitted. From the bell towers one obtains a fine view of the surrounding terrain. These towers are interesting, and narrow stairways leading to them, more so. The old tiles on the steps are so badly worn that unless one is careful, one is likely to stumble and fall. The sides of the passages are polished by the contact with the countless numbers of persons who have climbed to the towers. Here again one senses a similarity to the approach to the towers that one finds in San Xavier although these stairs are longer and have more arched passages.

In the lower part of the north tower are four bells, Two of these are lying on the floor of the tower; two are hanging cracked, and almost useless. One pair of these were cast in 1808; one in 1816, and the fourth has no date on it.

The oldest one bears this inscription on the rim.

Evidently these bells were rung from below, outside the tower. This is graphically shown by the deep narrow slots abraded in the burned brick of the outer edge of the facing of the bell tower arches where the ropes have slowly cut their way during the course of the years.

Scrawled on the inner walls of the twers are many names. In the south tower the oldest is"Juan Sicketson, 1854". Another "party" consists of "D. F. Harvey, S. Y. Wimble, J. P. Gabriel, and J. Gregg, 1856". There were many visitors here in the 1870s, 1880s, and late 1890s. On February 2, 1892, a holy feast was held at Caborca and among those who attended at that time were Albero and F. Beacher. These men were also there Dec. 2, 1898. Alberto Beacher was the artist now living in Altar, who drew the ground plan and side elevation of the old church at Altar, since destroyed.

The facade of the mission is pitted in places with bullet marks. These are the mute reminders of the siege of April, 1857. The plaster around the windows in the southern bell tower is badly chipped, and under one window (inside the tower) a loop hole, gouged out by one of the defenders of the mission, is still visible.

There was no original furniture in the church. All of this has long since disappeared.

SAN DIEGO DEL PITIQUITO

On Tuesday, Oct. 22, 1935, we left Altar to make observations at this mission.

Pitiquito was founded by Kino sometime prior to October, 1694. However, it was newer of much importance, structurally speaking, until after the Franciscan succession of the Jesuit field. This mission was formerly a rancheria of Pitiqui attached to Caborca and in the first half of the 18th centiry was known as the natividad del Senor del pitiqui (Documentos Para La Historia de Mexico, pp. 617-637) At that time, some 96 families lived there as well as sixty-seven widows and fifty-four orphans. In 1768, when the Franciscans took over the churches, the place was known as San Antonio Pitiqui, and there was neither church nor housenfor the priest at that place. Fr. Juan Diaz was the first Franciscan at this post, 1768-1773. The present brick structure was built sometime between 1768 and 1770.

We arrived at the town and presented a note of introduction from Mr. Roy Cutting to his friend Manuel Tieneda, presidente of the pueblo. Mr. Tienada was a butcher, but an agreeable man withal. He assigned Francisco Bouillas, the commandante de policia, to our party, and Mr. Bouillas took the key, opened the church for us, and stayed with us, giving such information as he had concerning the church and town.

The temple stands an a small elevation facing west. The modern town sprawls at the base of the hills in the rear of the church, and the scattered houses of the older pueblo lie in front of the structure. According to Bouillas, local tradition claims that the town takes its name from a famous Indian chieftan who once lived in the rancheria where the church was built. This leader, known as Piti or Pitic, fought against the Spaniards but was ultimately whipped in battle on a small fortified peak west of the church known as Sierra Quisman. On this hill are the remnants of stone walls. Another Indian chief identified with the history of this region was known as Canado, and a peak immediately west of the town bears his name. North of the church, rimming the horizon, are the low hills comprising of the Sierra de Pitiquito. Here, in the western end, where the hills begin to diminish somewhat, a fight occurred on April 11, 1911, between the forces of Francisco Reina, Madero adherents, and a rebel band. The Maderistas won, and three or four slain soldiers were buried in the modern cemetery northwest of the twon.

Although this church was constructed in the 18th century, there have been some"improvements" made at various times.

It is solidly built edifice of stone and burned brick, and in some respects differs from the other churches we visited. For example, the interior workmanship is solid, massive construction, especially the pulpit and the lectern. These are built of pillars and arches and give an air of austere frigidity to the p place not encountered in the other buildings.

In 1897, a new wooden floor was laid, the broad, stone, and concrete steps, and platform leading to the front entrance was constructed, a new brick bell gable was added to the roof, and two bells, cast by f. Romero, (this man was probably of the Romero family, who lived in Tubutama, where the bells were more than likely cast.)

At this same period, the main altar was reconstructed, a plain wooden affair being built over the original brick and

and plaster, Stained windows were also installed, and later, electric lights were added.

The original main doors have long since disappeared, and much of the other wood work is comparatively modern.

Of the original furnishings, there are but a few remnants. In the small dark room at the base of the bell tower stairs, on the north side of the church, we found a small, 18th century "arca", or wooden chest. This was smaller than the one in the baptistry of San Ignacio, but of the same type. The iron hasp and ornamental iron lock escutcheon were gone. At one time this sheet had been covered with black leather, but even this had rotted away, and had been pulled off, leaving only a few hard, dry scraps nailed along the sides of the body and lid. The chest was 34½" long, 13½" wide, and 14" high.

In the sacristy was a large, old, 18th century cupboard, or chest, with two panelled doors. This stood 43½ inches high, was30½ inches wide and 58 inches long.

These two objects were the only items visible pertaining to the days of the founding of this building. There were rumors of other pieces of furniture and fittings, which had been taken from the mission, and were said to be in the possession of a pious lady of the town, but I could not obtain her name.

On the south side of the church was the convento. Here is the same domed, arched, pretice, or colonade as that found at Caborca, and which probably stood on the inner side of the eastern patio at Tumacacori. A portion of the old rooms are here, in ruinous condition, but the main portions of the convento are gone and only the heavy stone foundations are visible.

As One of the side doors of Pitiquito are two paper seals typical of those pasted on the doors of the churches by the Federal government when the religious structures were closed by governmental order. The seals, ordinary strips of bond paper, bear these words typewritten on them, "Pitiquito, ere. 15, de 1934 sellado por orden Superior."

Our preliminary survey of Pitiquito was soon finished, and we decided to push on to our next objective.

SAN JOSE del BISANIC

This was a visita of Caborca and is sometimes known as San Valentia or plain Bisani. Another name was Nuestra Senor de Populo. This mission was apparently flourishing in 1768. In 1772, it was described as being 6 leagues west of Caborca and had a church and house for the priest, but the former was unadorned and the latter unfurhished.

This visita was the headquarters of some of the Pima rebels who fled here after 1751, and in the beginning of 1772, after more trouble, some of the population fled to the hills. It seems always to have been the center for troublesome spirits and,

being on the fringe of the mission settlements, offered a haven to renegades. By nature, the spirit of the oupost of Bisanig was restless. Although the farm lands were excellent, the Indians dwelling there preferred to live by fishing in the sea, distant some eight or ten leagues from the rancheria. Today, this preference is borne out by the quantity of shells scattered over the occupational area of Bisanig. In fact, of all the sites visited, this one indicates mostplainly the affiliation of the inhabitants with maritime industry. No other mission has so many shells around it.

The mission church, although a simple adobe structure, built with two wings, one being the baptistry, the other the sacristy, having a small patio on the west side between these two, was not without a certain charm in arrangement which must have made life a trifle more easy in that desolate outland of deserted plain and steriàe hills.

As may be seen in the accompanying sketch of the ground plan, the chapel faced south. The mission stands on a level, alluvial plain. The lands are known as being of the tierra temporal, watered only by intermittent rains. The present well, which furnishes water to the ranchhouse occupied by Sr. Macedonio Yanez, caretaker of the ranch owned by Sr. Pedro Gonzales, is 200 feet deep, giving some idea of the water level of this place. In Caborca, the water is close to the surface.

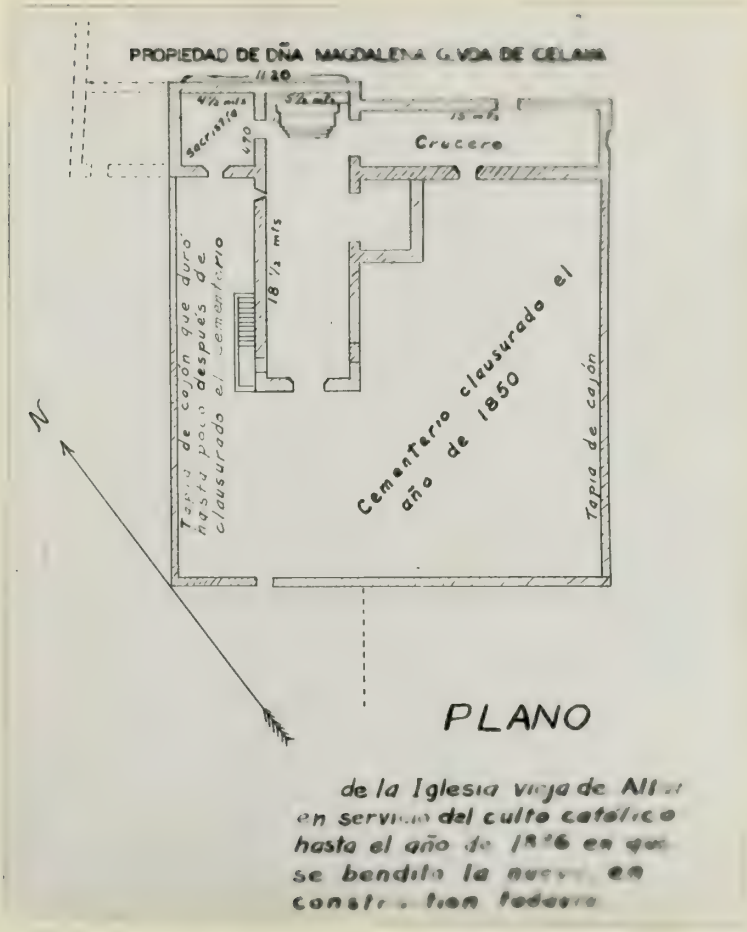
The passing years and the indefatigable spades of the treasure hunters have dealt hhrshly with San Valentin.

The walls now standing are badly eroded but are high enough to indicate the approximate size of the building, as it appeared in good condition. Although the edifice was built of adobe bricks, a certain amount of burned tile and burned bricks, fired in a kiln which stood a hundred and fifty yards or more to the southwest of the chapel, was used. The main altar, now totally demolished by gold hunters, was of burned brick, and chances are, the flooring was of fired tile.

The nave of the chapel was about seventy-three feet long and fifteen feet, ten inches wide. The cubero or wing, in which the baptistry was housed, was twenty-six feet long, and perhaps, twelve or fourteen feet in width. The sacristy was smaller. Along the north side of the baptistry wall extended a portico, the roof of which was composed of bursh, grass, and adobe upheld by adobe pillers. This sun shade was twelve to fourteen feet wide. In the wall of the baptistry, sheltered by the roof of the colonnade, were a series of small plastered niches. One of these could be identified. In this niche was the fragment of a moulded, plastered crucifix. Apparently these niches extended along the wall of the baptistry and the west wall of the main church, as we found traces of one of the niches on the latter wall. Judging by the remnants of plaster, the building had undergone renovation several times. The primary coats were the usual poor, thin, white-wash plaster, but the last finish was fairly hard. This was bestin evidence in the small circular window in the south wall of the baptistry. Here the plaster had clung to the adobe casing of the window and was in excellent condition.

Fig. VI (b) Translation: "Old church of Altar which was in service until the year 1886".

(See pp. 42-44 of the text).


PROPIEDAD DE DÑA MAGDALENA G. VDA DE CELAYA
Crucero
Cementerio clausurado el año de 1850
Tapia de cajón
PLANO
de la Iglesia vieja de Alt
en servicio del culto católico
hasta el año de 18?6 en qu
se bendijo la nueva en
constr. tion todavía

GROUND PLAN OF ALTAR CHURCH

Fig. VI (a) Translation: "Plan of the old church of Altar used for Catholic services until the year 1850 at which time the new structure, still under construction, was consecrated.

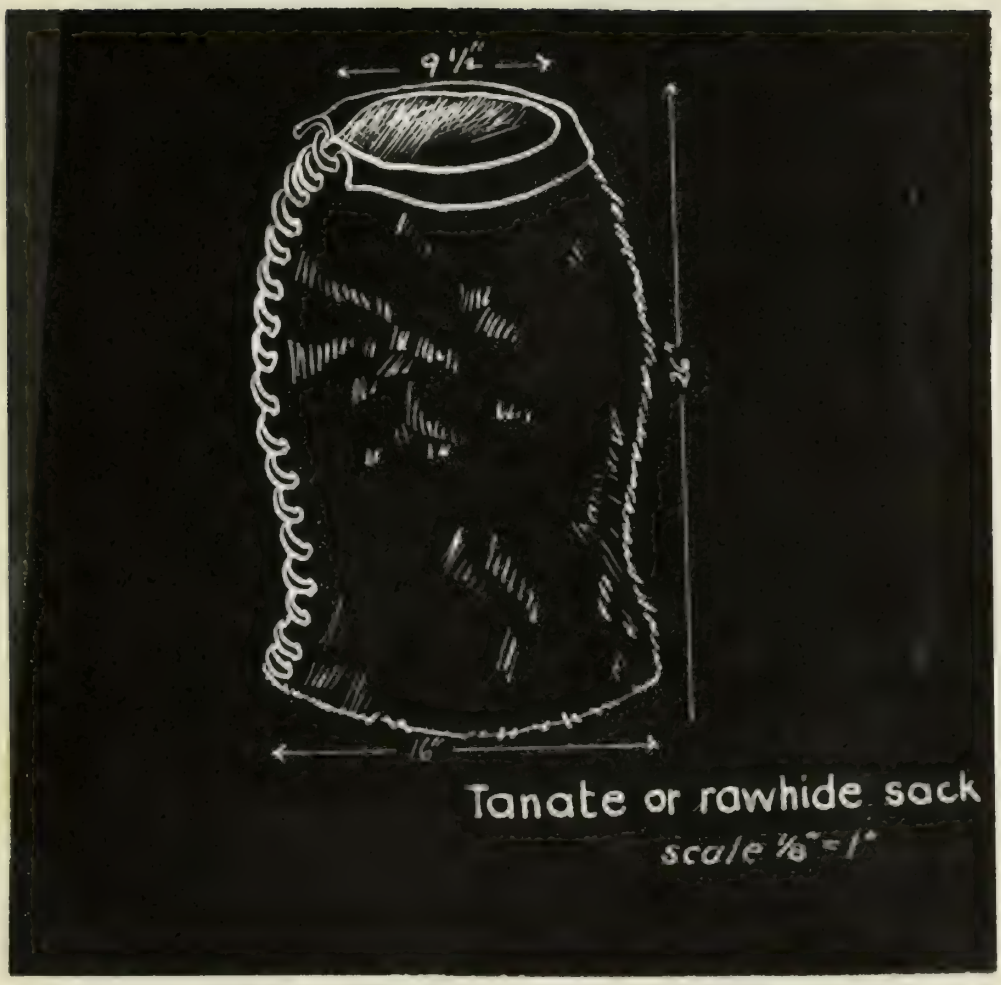


Fig. VII (See text, page 47)

Such rawhide sacks while not uncommon in Mexico were used in California, Arizona, New Mexico and probably in Texas as well.

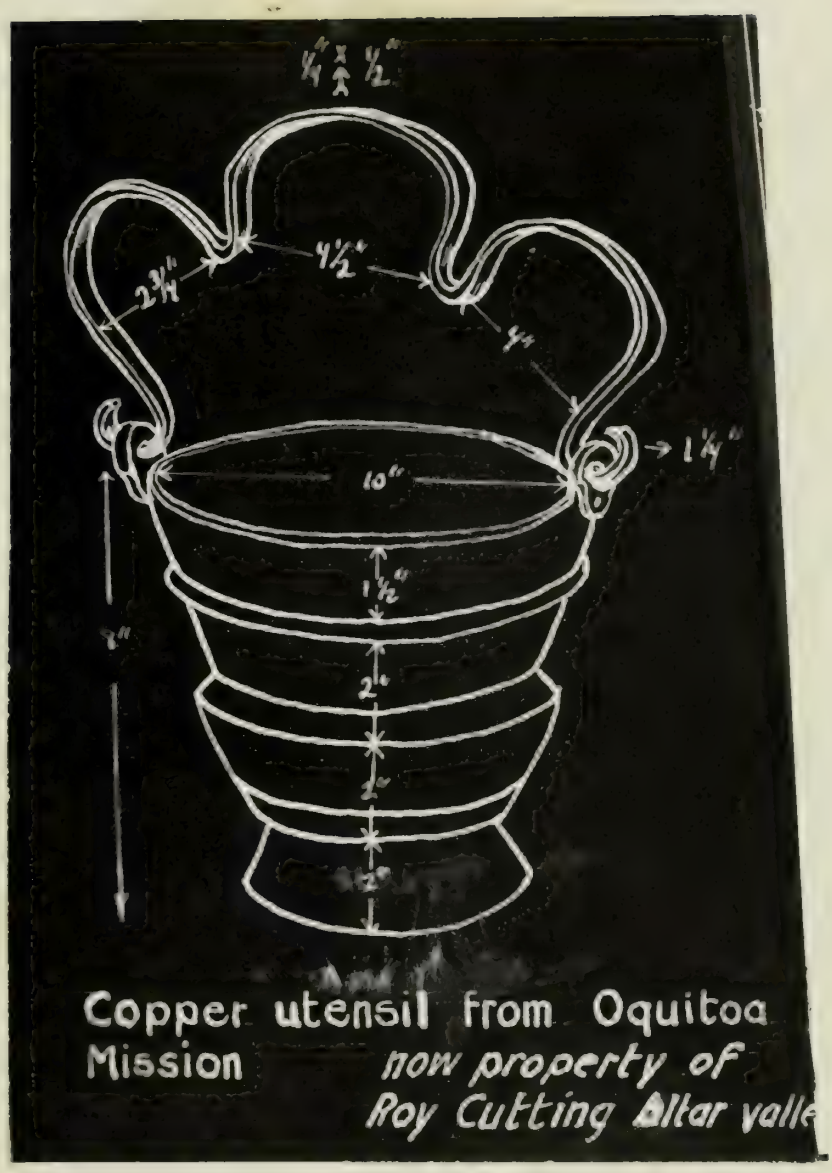


Fig. VIII (Not described in text)

This crude copper utensil formerly belonged to the mission establishment at Oquitoa but was given to Mr. Cutting by a Mexican custodian in repainting some old candlesticks.

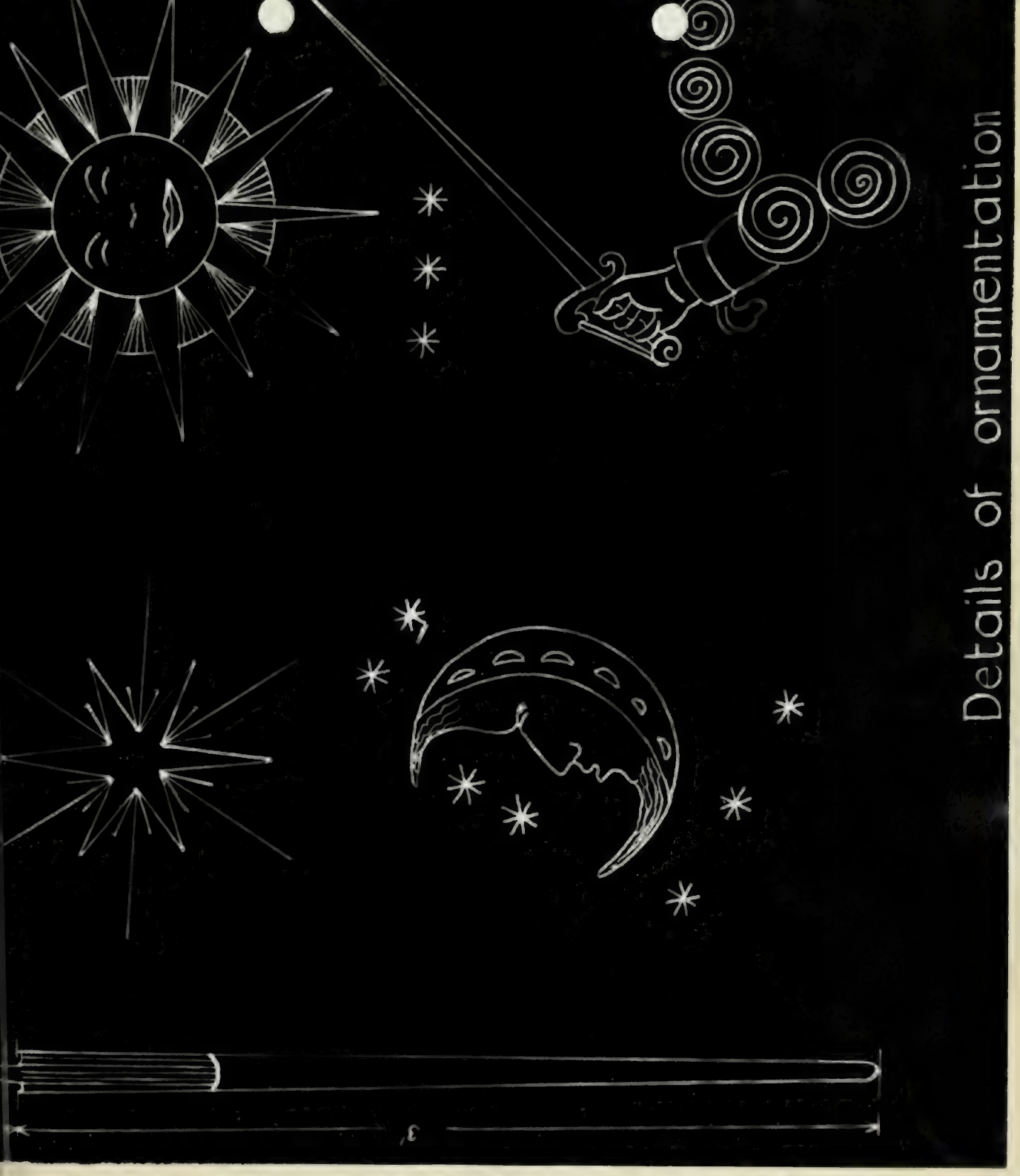
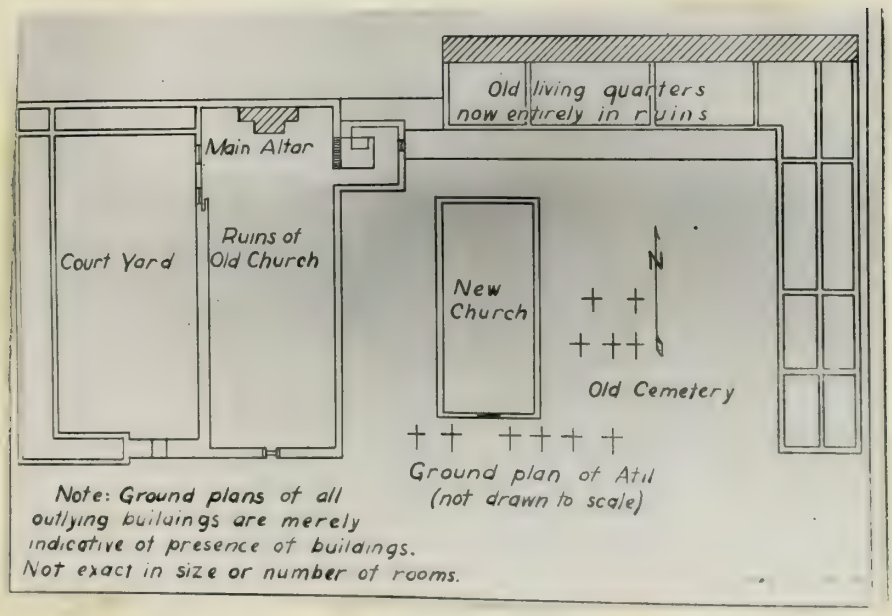
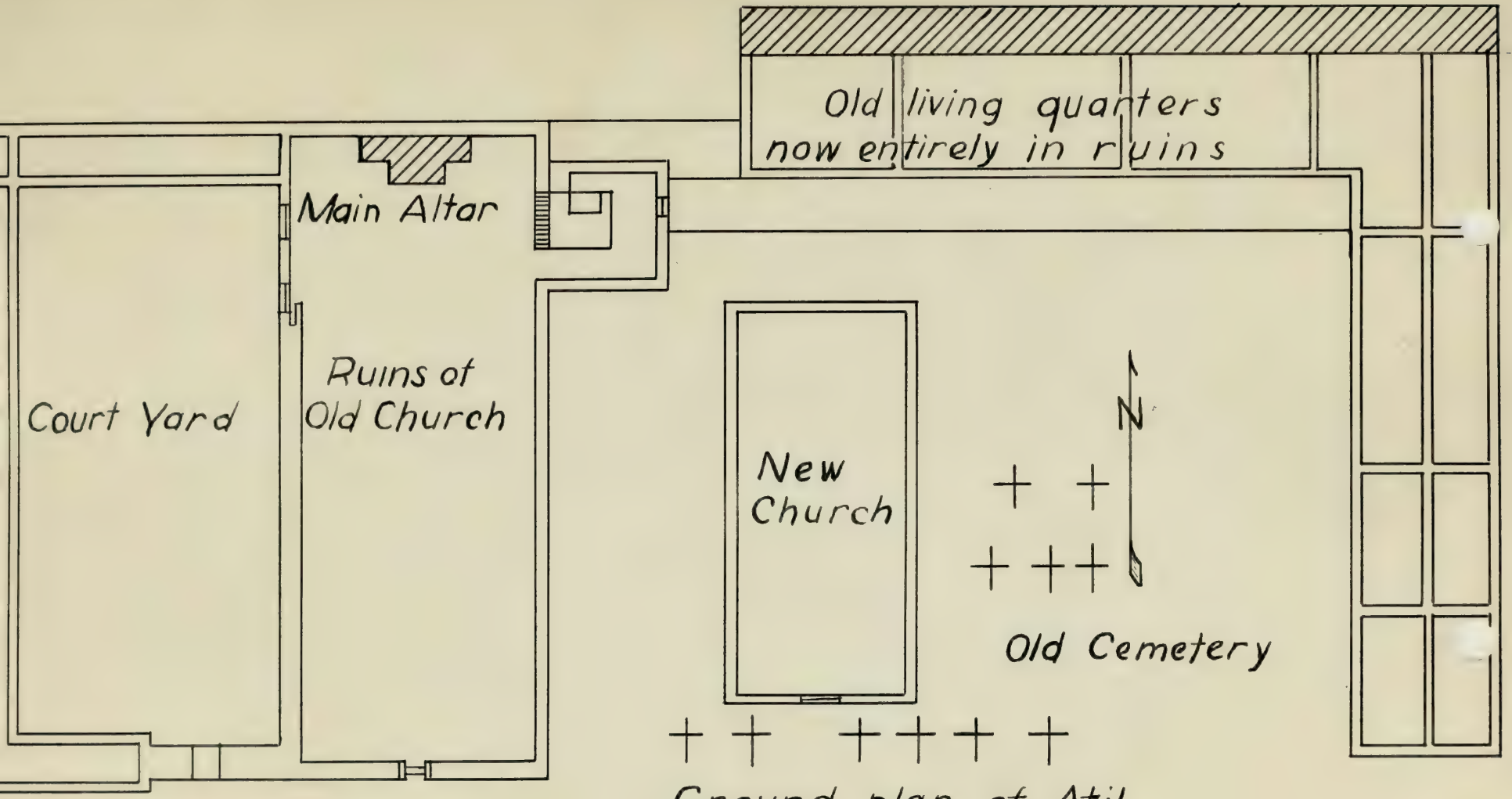


Fig. IX (Not described in text).
This sword blade, minus the hilt and guard, is typical often, of the weapons carried by Spanish- Mexican soldiers and caballeros during the late 18th ~~century~~, early 19th centuries. The details of ornamentation are etched on the blade in the fluted portion below the tang. It was found by a Mexican in the ruins of an old abode and sold to the present owner, Mr. Cutting, for 75¢.



GROUND PLAN OF ATIL

Fig. X. (See text page 49).



Ground plan of Atil
(not drawn to scale)

Note: Ground plans of all
utlying buildings are merely
dicative of presence of buildings.
ot exact in size or number of rooms.

Copy by LRC '43

Antigua Iglesia de Alta Gracia,
Pcia. de Cba. En Semana Santa
el año 1886.

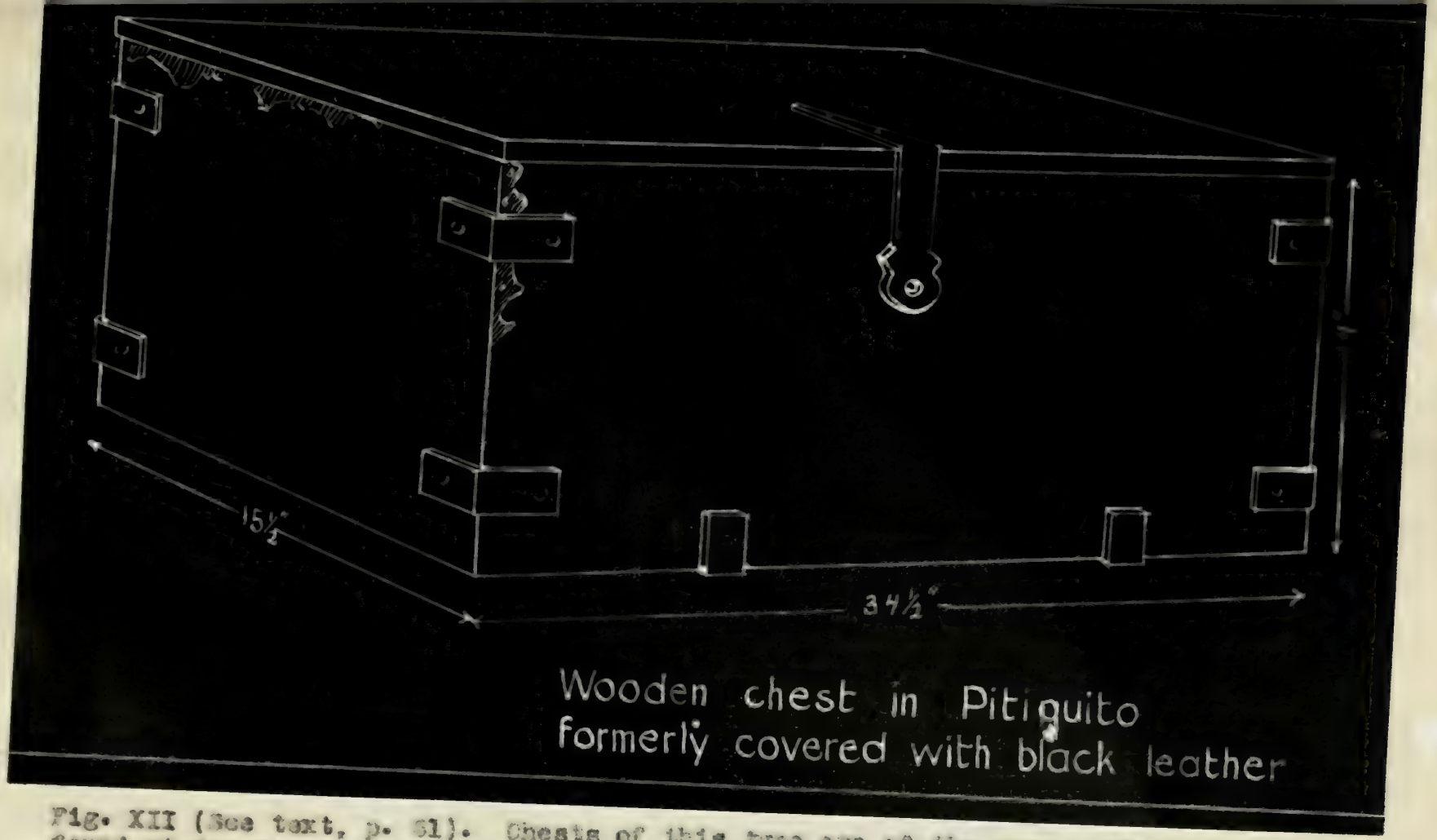


Fig. XII (See text, p. 61). Chests of this type are of the same period as the one found at San Ignacio. Whereas the chest in Pitiquito was, at one time, covered with black leather, such coverings were oft a painted or stamped with elaborate designs. The lock escutcheon had been removed from this specimen.

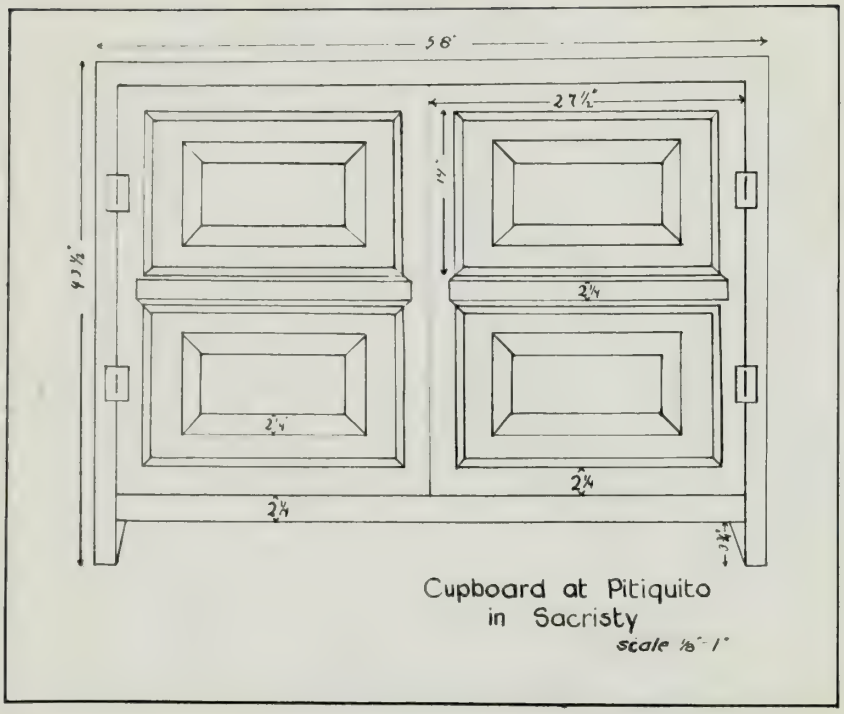


Fig. XIII (See text, page 81)

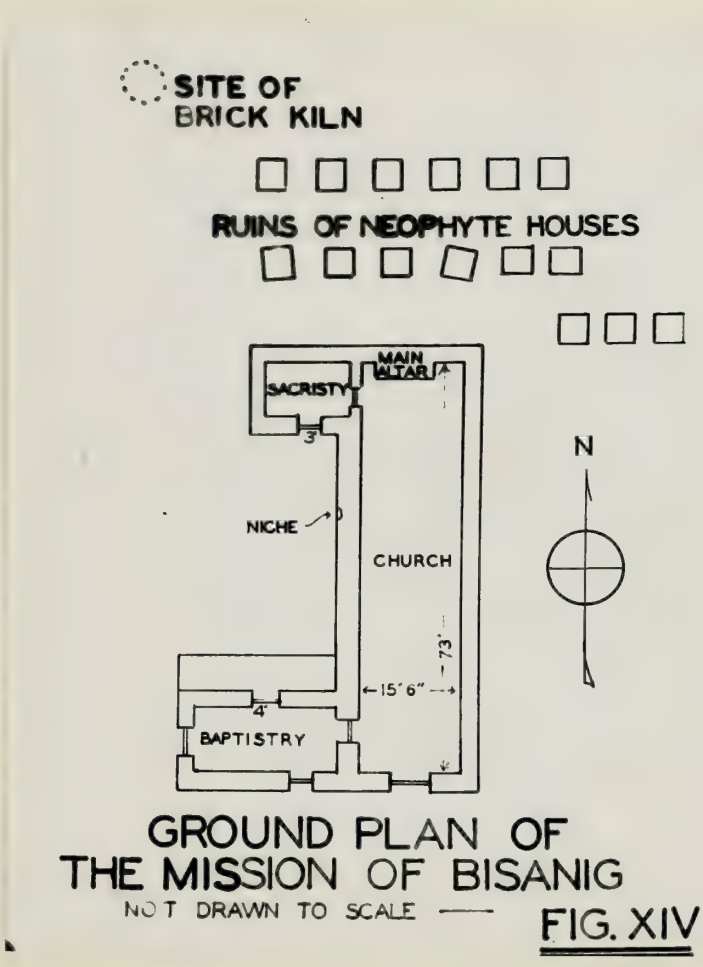
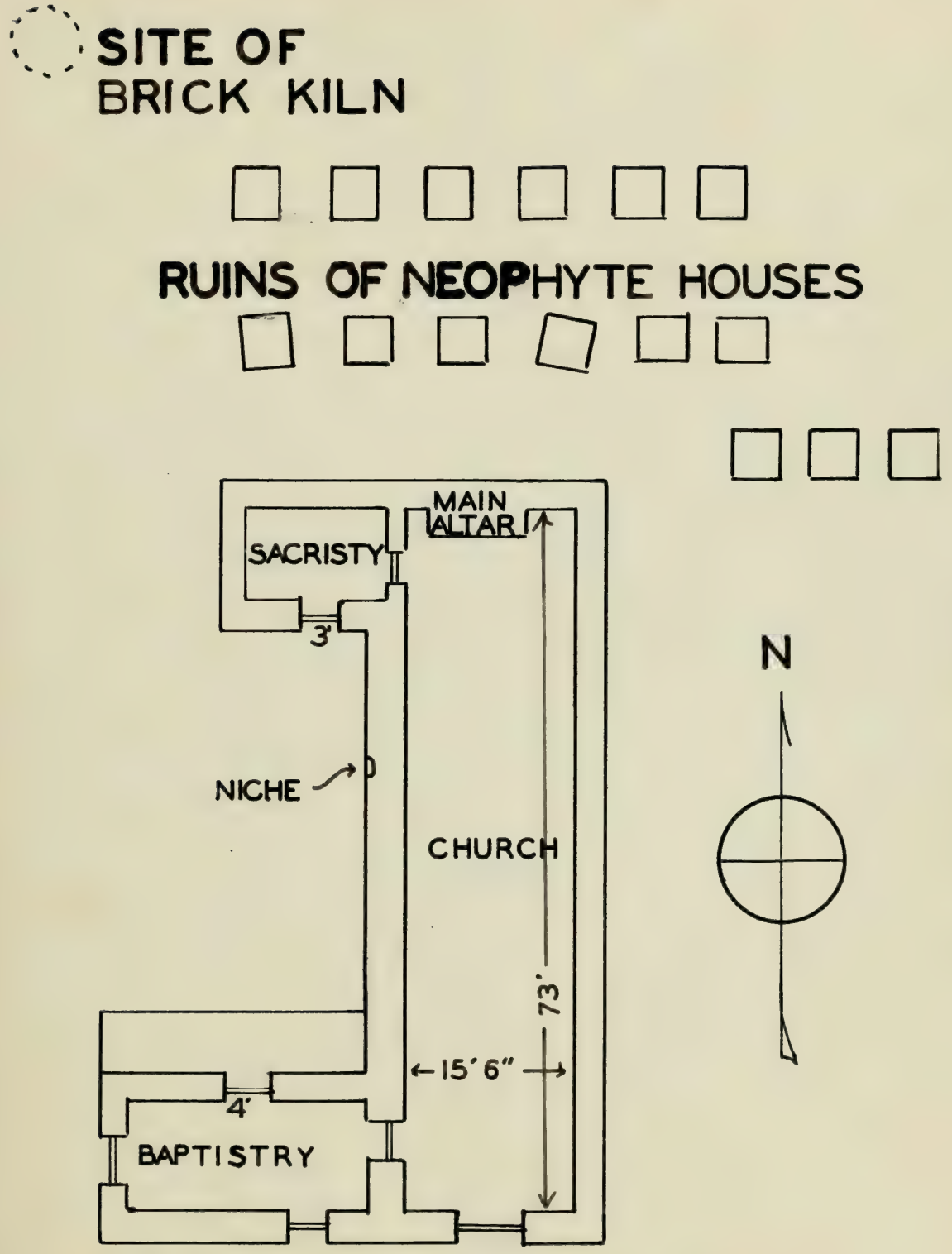


Fig. XIV. Ground plan of the Mission of Bisanig.

(See text page 63)



GROUND PLAN OF THE MISSION OF BISANIG

NOT DRAWN TO SCALE —

FIG. XIV

Drawn by T. N. Caywood

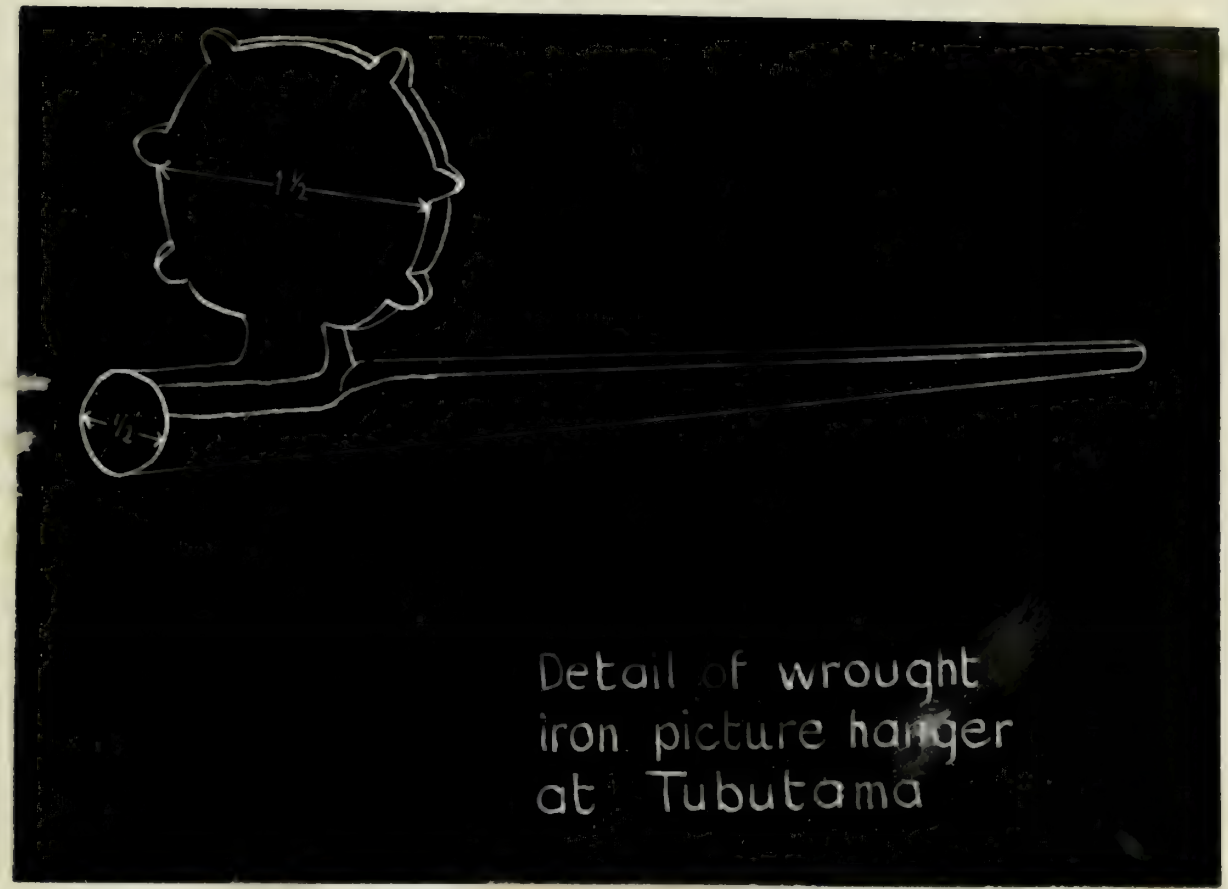


Fig. XVII (See text, page 72)

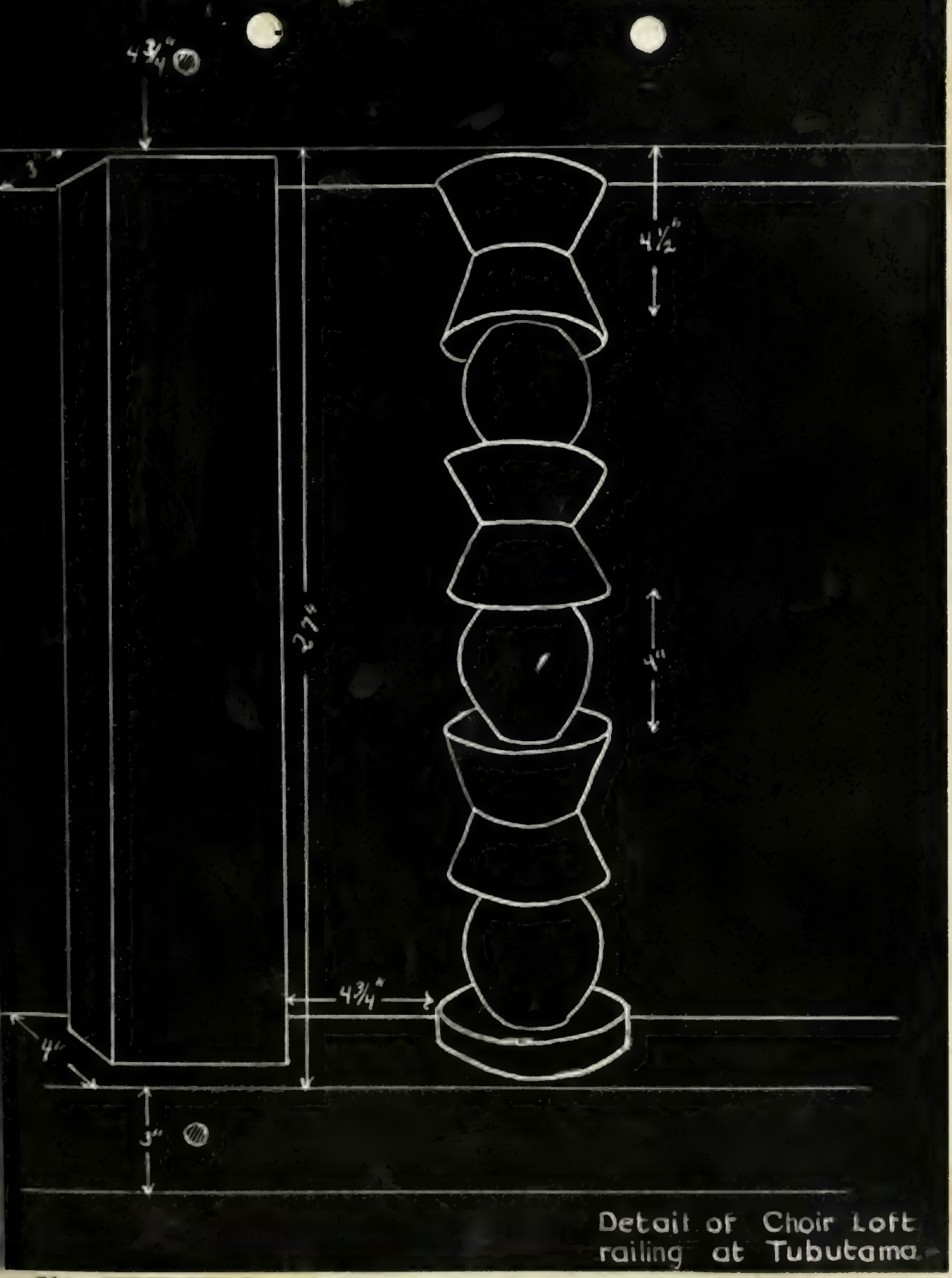


Fig. XVIII (No description in text). This railing was probably the only original one in all the churches visited. That at Oquitoa was modern, the one at San Ignacio seemed old but not ancient, and the rail at Caborca probably dated from the middle of the 19th century. However, etc. The [illegible] Tubutama [illegible] of the railing were set in cut.

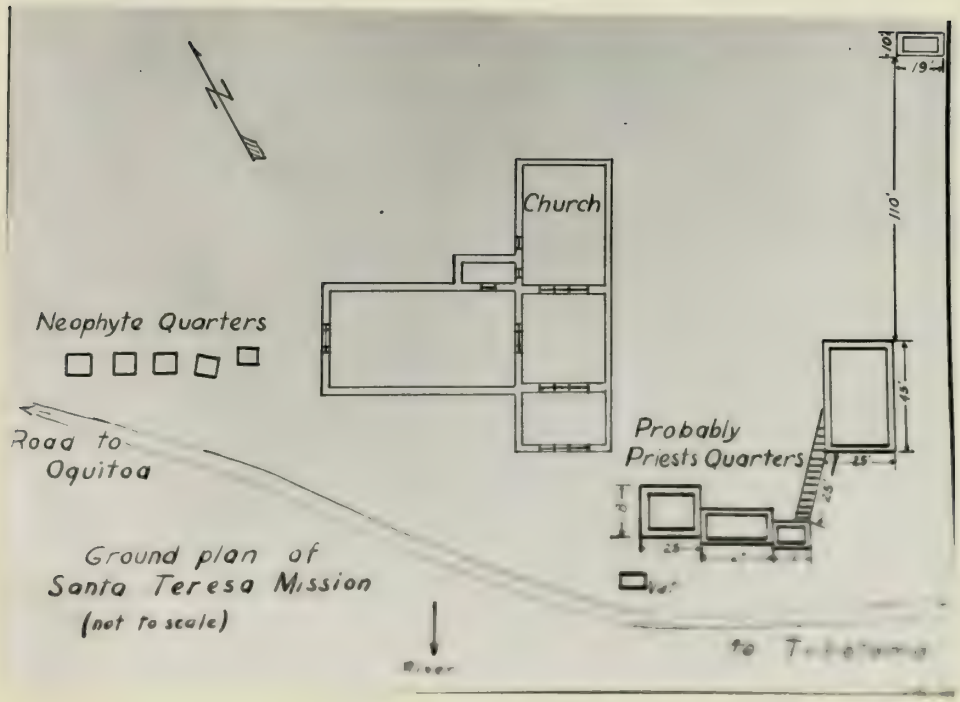
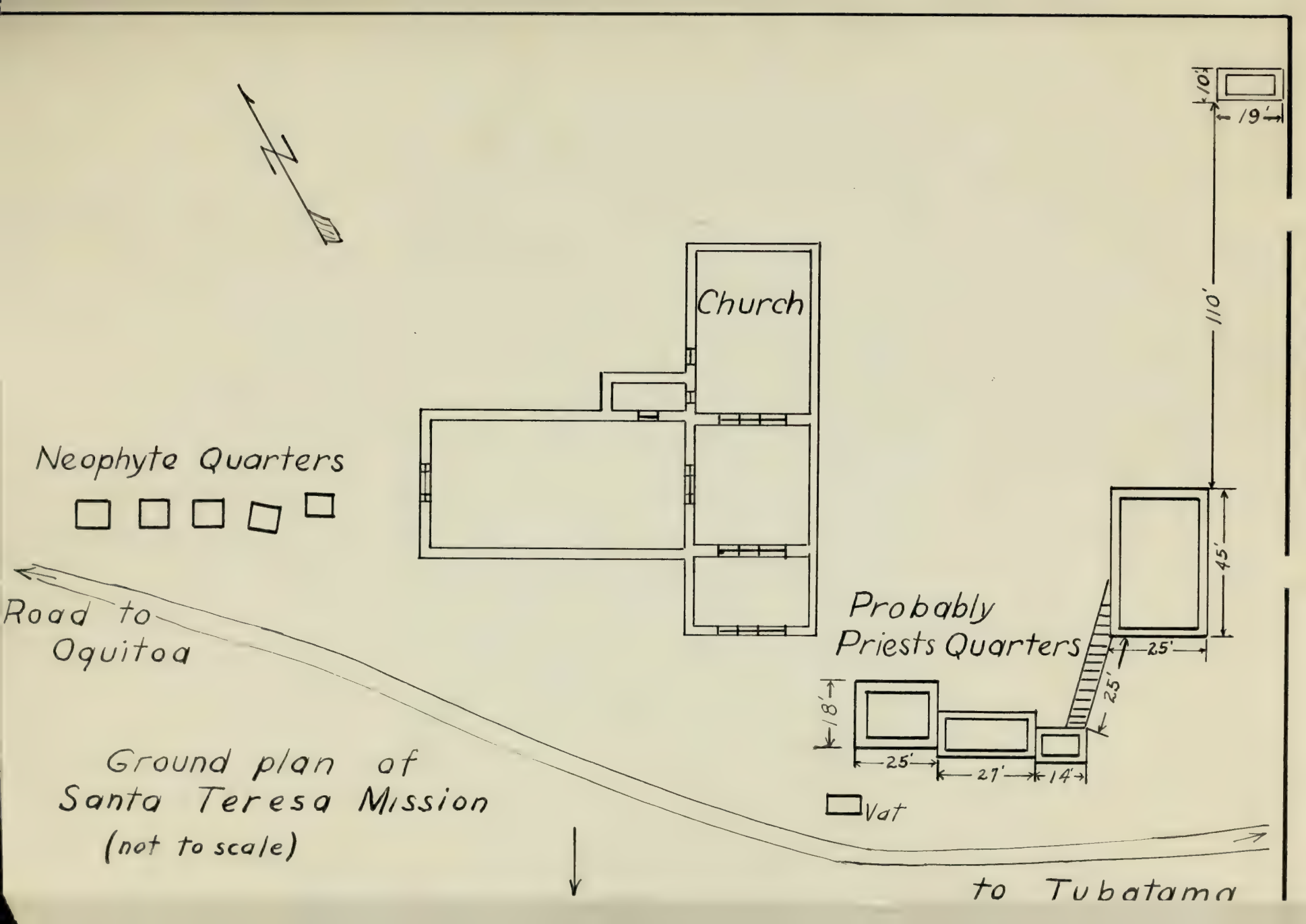
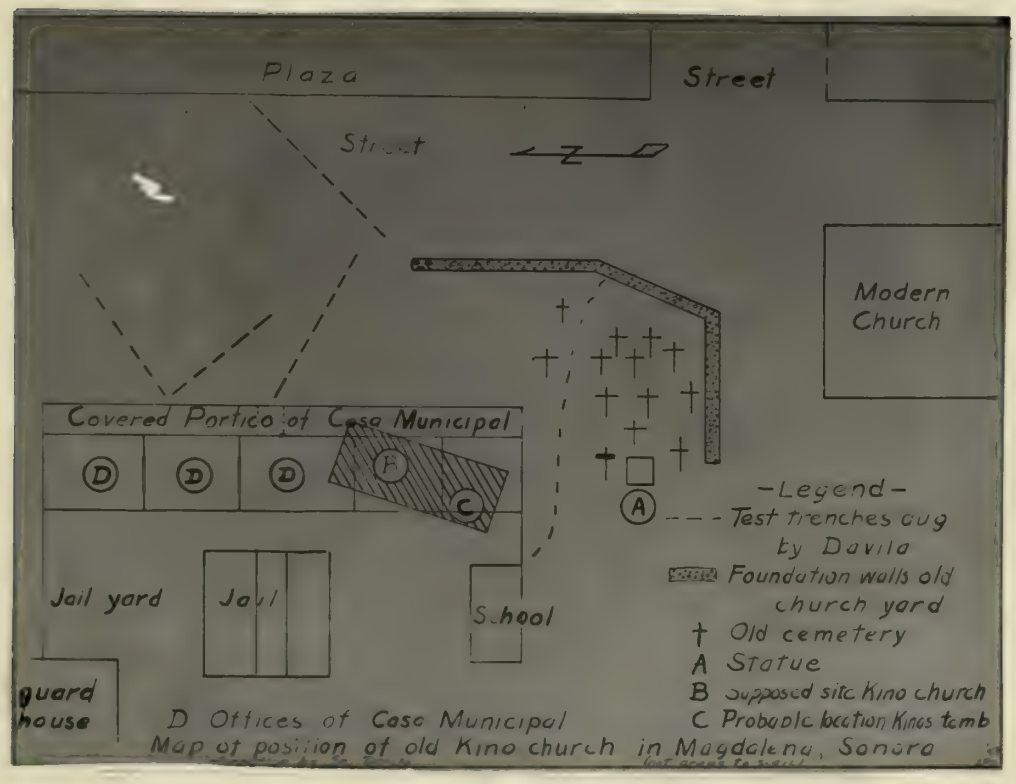


Fig. XI (See text, page 51)

GROUND PLAN OF SANTA TERESA MISSION

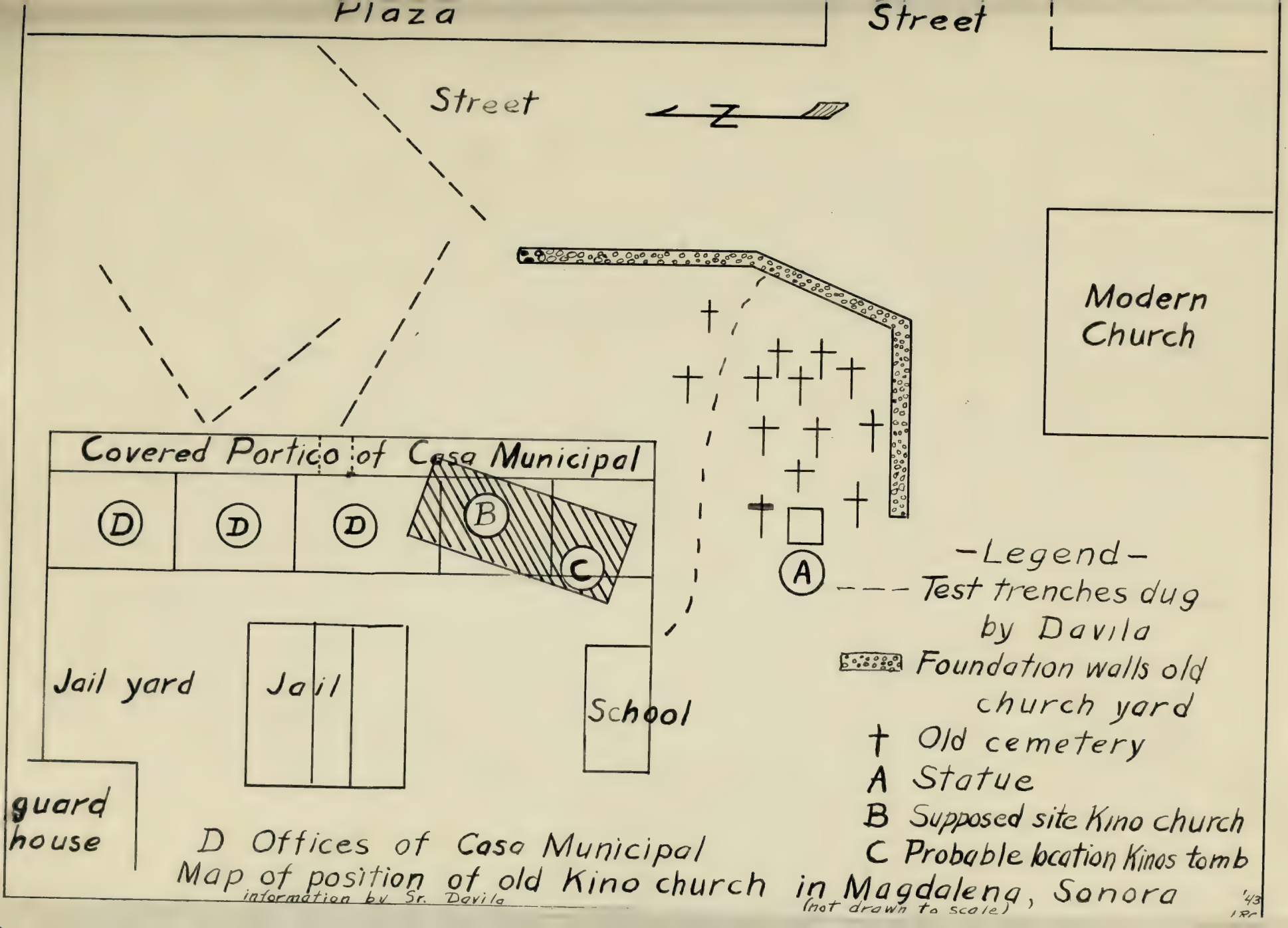


Ground plan of Santa Teresa Mission (not to scale)



Map of position of old Kino church in Magdalena, Sonora

Fig. 2 (See text, page 4)

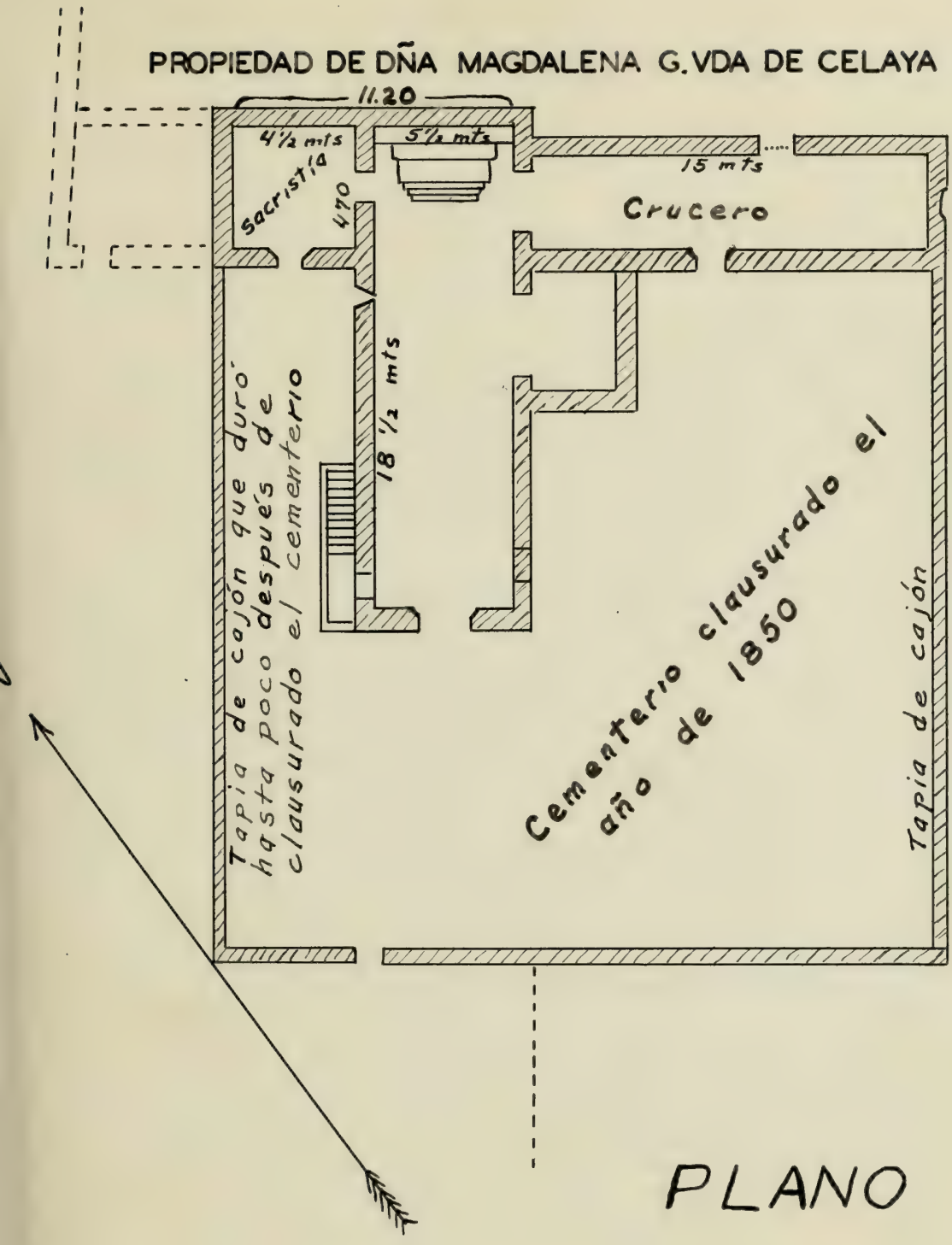


Map of position of old Kino church in Magdalena, Sonora

information by Sr. Davila

(not drawn to scale)

'43
IRC



PLANO

de la Iglesia vieja de Altar en servicio del culto católico hasta el año de 1886 en que se bendito la nueva, en construction todavia.

Drawn by I.R. Caywood

Photo 4/9/43

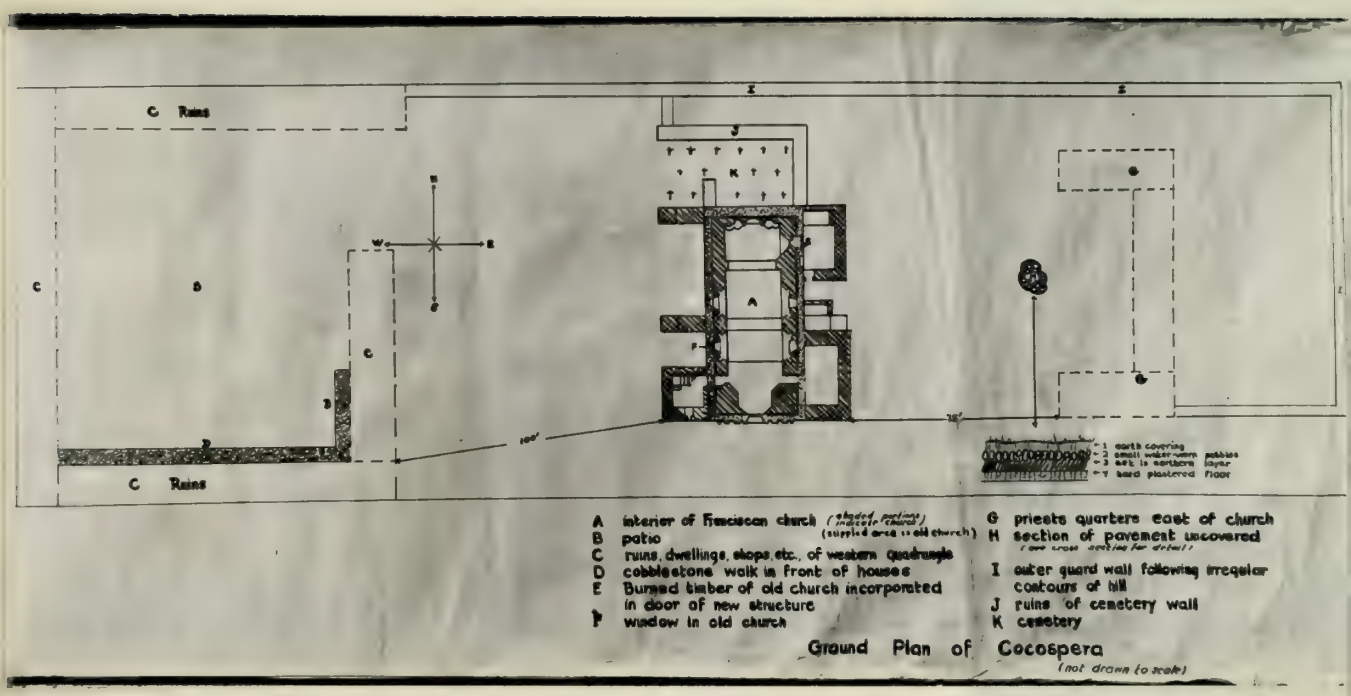

C Ruins
C Ruins
A interior of Franciscan church (shaded portion)
B patio (stippled area = old church)
C ruins, dwellings, stops, etc., of western quadrangle
D cobblestone walk in front of houses
E Burned timber of old church incorporated in door of new structure
F window in old church
G priests quarters east of church
H section of pavement uncovered (see cross section for detail)
I outer guard wall following irregular contours of hill
J ruins of cemetery wall
K cemetery
Ground Plan of Cocospera
(not drawn to scale)

Fig. IV (See text page 30).

THE KIVA

Published by the
Arizona Archaeological and Historical Society
ARIZONA STATE MUSEUM
Tucson, Arizona

Edited by the REV. VICTOR R. STONER

l. 1 MAY, 1936 No. 9

The Spanish Missions of the Santa Cruz Valley

Like a great oval platter with a crack down the middle, lies the Santa uz valley, hemmed in by jagged mountains and divided down the cen- by the erratic meanderings of the Santa Cruz river. It was into this

". . . land where the mountains were nameless
And the valleys unpeopled and still"

t the Spanish padres came during the seventeenth century, scattering h a lavish hand the litany of the saints as they assigned Christian rons to the Indian villages which they found in the Santa Cruz valley. n Gabriel de Guevavi, San Cayetano de Calabasas, San Jose del Tuma- ori, San Xavier del Bac, San Cosme de Tucson, San Agustin de Oiaur, ta Catalina de Cuit-o-a-bagum, they read. And when Padre Kino ched the river later called the Gila, he named it Rio de los Apostoles, d on its banks between Casa Grande Ruin and Yuma, he assigned to existing Indian villages the names of all the Twelve Apostles. (Map, l II, Bolton's, Kino's Historical Memoir of Pimeria Alta.)

Of the inhabited villages of the Santa Cruz of Kino's and Garces' times, y two are now occupied—San Xavier del Bac and Tucson. The very e of Santa Catalina, in Kino's time larger than San Xavier, is en- ely lost.

The Franciscan missions among the Hopi were built, flourished, and ssed out of existence some years before a Spanish settlement was made southern Arizona. Although the Franciscan friar, Marcos de Nisa and servant, Estevan the Moor, were the first Europeans to enter the esent boundaries of Arizona, the task of evangelizing the Indians of meria Alta was entrusted to the Jesuit fathers.

Following the failure of the missions in Baja California, because of favorable climatic conditions and hostile Indians, Padre Eusebio Fran- co Kino was withdrawn from the peninsula and assigned to the main- nd, arriving in Pimeria Alta in the spring of 1687. (Bolton, Vol I, ge 51.) At Cosari he built the mission of Nuestra Senora de los Dolores, m which center he carried out his explorations in fan-shape to the st, north, and west. With Padre Juan Maria Salvatierra, a fellow- suit, he celebrated Christmas 1690 in his new church at Dolores. The o padres then set out on a journey of more than seventy-five miles, aching Tucubavia, an Indian rancheria a short distance below the esent Arizona-Mexico boundary. It was while there that a band of baipuri Indians came to him, requesting that he and Father Salvatierra rney northward into the Santa Cruz valley in Arizona. Kino records in diary (Bolton, Vol I, p 119) "whereupon we ascended to the Valley of evavi, a journey of about fifteen leagues, and arrived at the rancheria San Cayetano del Tumacacori, where there were some Sobaipuri head- n, who had come some twenty and twenty-five leagues from the north. San Cayetano they had prepared for us three arbors, one in which to mass, another in which to sleep, and the third for a kitchen."

FILE NO.

pt. 17, 1936

IMPORTANT

is file constitutes a part of the official records of the nal Park Service and should not be separated or papers lrawn without express authority of the official in charge. Files should be returned promptly to the File Room. icials and employees will be held responsible for failure serve these rules, which are necessary to protect the rity of the official records.

ARNO B. CAMMERER,
Director.

VERNMENT PRINTING OFFICE 6—7410

In Tumacacori, a village of some forty houses, the Indians present the Fathers babies to be baptized. Kino records that Salvatierra, who h been sent by the Jesuit provincial on the tour of inspection, was high elated over the prospects of a mission among the docile and affable S baipuris in the fertile Santa Cruz valley, and promised to use his go offices to secure additional missionaries for that sector of Pimeria Al The padres returned to their missiones in Sonora by way of the villa of Guevavi.

In order not to fall into some common errors regarding the missio it is necessary for us to understand our terms. The "mission" was the he residence of the padre and usually the site of the largest Indian villa The more or less permanent settlements of the Indians were call "rancherias." A rancheria where the padre went for church services w called the "visita." Occasionally it had a church or cemetery, or both. T date of the founding of the mission is often confused by modern write with the date of the building of the mission church. It was the custo of the Spanish padres to give the name of a Christian saint to each v lage. When the church was built, it was given the name of the patron the village. Thus Padre Kino gave the Indian village of Bac the na San Xavier del Bac on his first visit there in 1692. However, it was n until several years later that there was any mention of a church havi been built there, and it was not until 1797 that the present missi building was put into use.

On the first of Kino's fourteen entradas into Arizona, he appears have entered the state at a point slightly west of the present town Nogales. On his return to his headquarters at Dolores, he passed up t Santa Cruz river, visiting, as he records, the rancheria of Guevavi.

The depredations of the various Indian tribes upon his Sonora missio occupied the Padre's attention during the first part of the following ye of 1692. By August, however, things had quieted down and with fi pack animals and several servants, he was able to return to the San Cruz valley. On this entrada, he penetrated much farther northwa visiting the great rancheria of Bac, where he found a population of mo than eight hundred people. On his return to Mexico, he traveled by w of the pass between the Rincon and the Santa Rita mountains, turni southward along the San Pedro river and visiting the home of his c friend Chief Coro at Quiburi, near the present town of Tombstone.

In November 1694, in company with Lieutenant Manje, he turned aga northward, passing Guevavi, Tumacacori, and Bac, and continuing on un he reached the Gila river. Here he saw for the first time the ruins of Ca Grande. In his "Favores Celestiales," he gives a description of the buildi and the site, and Lieutenant Manje in his "Luz de Tierra Incognita," d scribes the ruin and also gives a drawing of it. Kino, always with an e out for good mission sites, later remarked that it would be very easy rebuild the Ruin and establish an excellent mission there.

In 1695 Kino made a trip to Mexico City for the purpose of securi additional missionaries for Pimeria Alta. The following January, 16 upon returning to Pimeria Alta, he began the formal founding of missio in Arizona—although Bancroft says,

> ". . . the tendency is to regard Padre Kino's wanderings as mission-founding expeditions, though as a matter of fact, there were no missions in Arizona until long after his death." (Arizona and New Mexico, p 373.)

Andres Burriel in "Extractos y Notillas," a manuscript in the Hunting Library, says that it was at this time that Kino began the mission bui ings at both San Xavier del Bac and San Cayetano del Tumacacori. K himself records that he then left live stock at both villages—cattle, she goats, and horses.

During the next few years these ranches prospered greatly, as K remarks. On April 24, 1700, he arrived at Guevavi, where he found two hundred people of the village had prospered since his last visit addition to the horses and cattle he had left them, they now had eig

sheep and goats, great quantities of agricultural products, and had lt an earth-roofed adobe house for the padre whom they hoped soon receive. Things had gone even better at Bac, where Kino found it essary to remain seven days. He records that he killed six beeves of three hundred on the San Xavier ranch, where there were also many ep and goats. At this same time he laid the foundations for a larger rch, which several modern historians wrongly suppose to have been foundation of the present mission building.

n the year 1701, Kino's enthusiasm rose to new heights when after ny years of untiring labor, he was able to convince his civil and re- ous superiors of the need of more missionaries for Pimeria Alta. Four uit priests were assigned to his missions, two being stationed in the ta Cruz valley in Arizona. Father Francisco Gonzalvo was placed at Xavier del Bac and its visitas reaching northward and including San me de Tucson and Santa Catalina.

ew life was injected into the missions, and a period of expansion be- . In Guevavi, Kino states that there was built ". . . a church small neat, and we laid the foundations of a church and a large house." abasas was at that time a thriving rancheria, and no doubt some sort a church building was then erected.

his period of prosperity and expansion continued until about the time Padre Kino's death in 1711. Then set in a period of decline. Even be- Kino's death, Spanish settlements were beginning to press upon the sions, resulting in the Indians being oppressed and the good influence the padres being undermined. New missionaries came in, but they ked the enthusiasm and force of character that Kino possessed. There e difficulties and differences between the Indian tribes and the mis- s, and the Apaches were quick to take advantage of the dissention. ally, on November 21, 1751, the Pima Revolt broke, as Padre Francisco er notes in the church register of Guevavi, "On the 21st of November his year 1751, the entire Pima nation revolted, and did not return to pueblo until 1754. Then they began to return to Holy Church."

t that time, Guevavi was reoccupied with Tumacacori, Arivaca, Cala- as, San Xavier del Bac, Tucson, and other villages as visitas. Ap- ently San Xavier remained a visita of Guevavi for several years. The rch register shows that on January 3, 1754, immediately after being ed in charge of San Gabriel de Guevavi, Padre Pauer journeyed to , where he baptized 21 persons. On the same day he baptized 28 per- s at Tucson. Turning back again, on the sixth of the month he baptized children at Tubac. He records that the next day ten people came n San Xavier to Guevavi to be baptized. On the sixth of August he rned to San Xavier and "Tucsson" baptizing 43 children. In February 3, he was again at San Xavier del Bac where he records the names 26 children whom he baptized. On the first of November 1756, in the cheria of Doa-cug-oita and the pueblo of Calabasas, he baptized Nicho- the alcalde and his wife Caterina, four single people, and thirty-six ried couples.

uring the year 1757 new signatures appear on the Guevavi register. re Miguel Gerstner made two entries in the register during January. re Bernardo Middendorf was there during August. On the 31st of ember 1757, Padre Alphonso Espinosa was at Guevavi apparently on way to San Xavier del Bac to take station there.

n April 1767, Carlos III of Spain expelled the Jesuit Fathers from nish countries, and the Sons of St. Ignatius, without a word of com- nt or criticism, humbly submitted to the royal decree, and departed n the lands where they had so effectively planted the seed of Chris- ity, watering it with the sweat of their brows, and fertilizing it with blood of their brother-martyrs.

ollowing the expulsion of the Jesuits, the missions of Pimeria Baja e given to the Franciscans from Jalisco, while those of Pimeria Alta e entrusted to the Franciscans from Queretaro. Engelhardt says Fray n Gil de Bernavi arrived at Guevavi in 1768, where he had as visitas nacacori, Calabasas, and Sonoita. During the same year, Fray Francisco

FILE NO.

pt. 17, 1936

IMPORTANT

is file constitutes a part of the official records of the nal Park Service and should not be separated or papers rawn without express authority of the official in charge. Files should be returned promptly to the File Room. cials and employees will be held responsible for failure serve these rules, which are necessary to protect the ity of the official records.

ARNO B. CAMMERER,
Director.

GOVERNMENT PRINTING OFFICE 6—7410

Tomas Garces arrived at San Xavier del Bac. The church register, Calabasas Bautismos, is mutilated at this period, several pages having b torn out. But from January 1769 until March 1771, the register ent are made in the beautiful handwriting of Fray Juan Crisostomo Gil Bernavi, as perfect as steel engraving.

The Franciscans continued the work so thorough founded by Jesuits. During the Franciscan period, the pueblos and visitas seem have outgrown the first churches erected by the Jesuits, and new bu ings seem to have been erected at Guevavi, Tumacacori, and San Xav del Bac. Calabasas also comes into prominence as a visita of Guevavi.

Nor were the Franciscans behind the Jesuits as explorers. Not only they retain contact with the tribes of the San Pedro river and the Sa Cruz valley, but Fray Garces extended his explorations as far north the Hopi pueblos in northern Arizona. When the Declaration of Indepe ence was being signed by representatives of the American Colonies, F Garces was sitting in a sheep corral outside Oraibi, because the Ho would not permit him to remain in their village. Whereas the Jesuits g no martyrs to Arizona, four Franciscans of this period, Juan Diaz, J Matias Moreno, Juan Barranache, and the saintly Francisco Garces, g their lives for the Faith, being put to death by the Yuma Indians in 17

The missions of the Santa Cruz valley flourished throughout the years of the eigtheenth century and the first of the nineteenth. Then, 1821 and 1822, came the independence of Mexico from Spain, the expuls of the Franciscans, and the confiscation of mission property under euphonic name of secularization. By 1827 the last Franciscan appears have left Arizona. Tumacacori was sacked by the Apaches. The faith Papagos successfully defended their splendid San Xavier del Bac. Af the Gadsden Purchase in 1853 and 1854, Bishop Lamy of Santa Fe s his vicar general, Father Machebeuf, on a visit of inspection of the te tory newly annexed to the Diocese of Santa Fe. Father Machebeuf fou the domes of San Xavier leaking badly. He burned lime and replaste them, thus becoming the real savior of San Xavier del Bac mission.

Somewhere in Europe and the Americas, no doubt, there lie hid many historical records that would greatly enlighten us upon the hist of the missions of Arizona. But to the present time, very little of this h tory has been discovered. Likewise, archaeologists have done little to out this history from the ruins of the old churches and pueblos. T archaeologists can do much to fill in the lacunae in the written hist of the missions. Did space permit, I should like to tell you what has b done within the last few years toward refuting the hoary errors regard the missions of the Santa Cruz valley. I should like to show you that K was not the first missionary nor did he lay the foundation for the bui ing; that Tumacacori mission is not older than San Xavier. It is to hoped that at no distant date, the full records of the excellent piece excavating done by the National Park Service at Tumacacori under direction of Mr. Paul Beaubein will be published.

This is a very brief and very inadequate sketch of the Spanish missi of the Santa Cruz valley. The enthusiasm of the Spanish and their p chology is entirely incomprehensible to modern Americans, because t entirely overlook the religious enthusiasm that drove them on. W St. Paul they cried out, "Caritas Christi urget me—the love of Ch impells me." There is nothing in our pale anemic contemporary life can compare with the zeal and earnestness of these Spaniards. Their n est counterpart in history is probably the period of the Crusades. F were times of long and fierce wars. Morals had indeed sunk to a low le but faith was strong. During those times, it was the ardent desire to sh that faith with the heathen nations that motivated both Crusaders Spanish conquistadores and missionaries. To the eternal shame of Ariz not one of these heroic soldiers of the cross is honored with an adeq memorial. Indeed we cannot add to nor detract from their essential gl But it is good for us to stop in or objectless hurry and remember that have had little part in the making of this Southwest in which we liv

VICTOR R. STONER.

23
1929)
410

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

---------- NATIONAL PARK

FILE NO.

Report on

Sonora Mission Studies

by Robert H. Rose, Berkeley, Sept. 17, 1936

B
501

IMPORTANT

s file constitutes a part of the official records of the
nal Park Service and should not be separated or papers
rawn without express authority of the official in charge.
Files should be returned promptly to the File Room.
cials and employees will be held responsible for failure
serve these rules, which are necessary to protect the
ity of the official records.

ARNO B. CAMMERER,
Director.

ENMENT PRINTING OFFICE 6—7410

333 Hilgard Hall, U. of C.,
Berkeley, California
September 17, 1936

MEMORANDUM TO MR. HALL:

Subject:-Accomplishments to date on general projects and especially in Bancroft Library historical research.

Historical Research:

Arriving in Berkeley on the evening of August 1, 1936, I did not begin duty in earnest until the morning of August 3, taking a little time to details concerned with changing residence for three to four months or longer.

On August 3 and for the few days following, arrangements were made for entering Bancroft Library and the University Library. Interview were made, permit cards obtained and other details attended to. During this time I also made myself acquainted with the various projects in progress in the laboratories of the Field Division of Education giving special attention to those concerning the Southwest. Having become oriented and being equipped with the essential permits and privileges, actual work was started. Following is a list of specific accomplishments to date:

1. An intensive study and review of Spanish was made in order to insure accuracy in abstracting from various source materials. Regardless of how one once knew a language the facility for translating is often nearly lost and review is needed to bring it back.

2. During the 10 days to two weeks this intensive review was in progress, I consulted the basic references in Southwestern History by Bolton, Bancroft and others, and studied the card catalogues of Bancroft and the University Libraries. I also consulted early American narratives and diaries such as (a) Bartlett, 1850-1853; (b) Gregg's "Journal of a Santa Fe Trader", 1830-1839; and (c) Carleton's diary of a trip to Gran Quivira National Monument in 1853. These references, and others were extensively abstracted, not because they are not obtainable but in order that copies of the abstracts could be placed into the hands of Custodians and rangers on the "firing line". Furthermore, these were references I was privileged to draw out of the library for 10 days to two weeks and stenographic help was available for awhile in copying these abstracts.

3. Then came an examination of the accounts of the expeditions of Rodriquiz, Onate, Espejo, Escalante, some of which are in English translations and some are not. Quite naturally, titles of other volumes sounded promising only to be much too general to be of value. Abstracts of significant passages were made.

The work of the first two weeks resulted in a good review of the Spanish language; the procuring of extensive abstracts of early American references for placing into the hands of rangers and custodians doing contacts work; and a familiarity on the part of the writer with the basic historical works on Pimeria Alta, Arizona and New Mexico history. Thus prepared, I was ready to begin the specialized research.

This intensive research began about August 20. Specific results to date(September 17) seem gratifying. Among materials found are the following:

a. Velasco's "Noticias Estadisticas del Estado de Sonora", written about 1850, contains extensive quotations from a 1829 Mexican Government report on conditions among what we now know as the "Kino Chain of Missions". In 1827 (Dec. 20), there was a decree effected which is supposed to have resulted in abandonment of all Pimeria Alta missions including Tumacacori. About this important period in Tumacacori's history we know very little. The 10 to 12 pages of detailed abstracts from Velasco will help fill this empty gap.

b. Extracts have been taken from the reports of American and English mining companies operating in Sonora from the late 18th Century, on through the 19th. Little on missions is given but conditions of the day are portrayed. These extracts will be of value in preparation of exhibits on mining.

c. A work of several volumes entitled "Mexico a Travers los Siglos" - Mexico through the Centuries - has been examined and important items of bibliography were found.

d. What may prove to be a highly important find on Gran Quivira turned up recently in the form of a volume of Seville, Spain records on history of New Mexico missions. This work is by Maas, a Monk, and is published in Madrid, 1929 - too recently to be extensively quoted in American works. A detailed account of "The Cities that Died of Fear" - Tabira(Gran Quivira), and locality - is found. This work has been extensively abstracted. While some of these details are already known from other sources, this work by Maas contributes additional detailed information.

e. Mexican Government Scientific and Scientific reports for 1750 and thereafter, have been found and suitable extracts made.

f. Most important of all :- In a series of manuscripts and documents published only in Spanish, I find a number of inventories of Sonora and Arizona missions, dated July 6, 1772, and by Reyes, Bishop of Sonora. While little is said about sizes, shapes, etc. of the churches themselves, the church property such as vestments, chalices, etc., are listed and described. These inventories for all Kino Missions and visitas have been copied and constitute material of prime value to our contacts men as well as to the technicians concerned with exhibits preparation.

In addition to the historical research pursued as outlined above, I have given incidental supervision to coloring of some 225 Southwestern Monuments slides by Field Division artists. This supervision consisted in supplying color notes on each slide as needed and in dropping in occasionally to lend such advice as was useful while work was in progress. The artists are to be highly complimented in their ability to grasp the character that needs to be put into slides to make them show to best advantage.

In addition, the matter of a lantern slide cabinet was looked into, one was found available, and shipment to Southwestern Monuments was made. This cabinet, together with professional services in coloring slides, represent a very substantial contribution indeed to the monuments by the Field Division of Education.

Schedule of hours at Bancroft Library is as follows:

Monday to Friday, Inclusive----8:00 A.M. to 10:00 P.M.
Saturday----------8:00 A.M. to 6:00 P.M.
Sunday----------1:00 P.M. to 5:00 P.M.

Since about August 25(when the more valuable sources began to turn up), I have maintained hours at Bancroft Library as follows:

Monday to Friday-----8:15 A.M. to 12:00 Noon
1:00 P.M. to 5:00 P.M.
and 7:45 P.M. to 10:00 P.M.

Saturdays----------8:15 A.M. to Noon
1:00 P.M. to 5:00 P.M.

Sundays----------1:00 P.M. to 5:00 P.M.

The Sunday schedule has been maintained since August 25 with exception of a Sunday spent visiting Muir Woods National Monument.

Library restrictions require the pencil longhand copying of all materials by research workers personally, and no exceptions are made even to visiting university professors whom I have met in my work there. Therefore, it is not difficult to see that one's rate of production is limited largely by (1) how fast one can copy Spanish manuscript and document material; and (2) by one's success in finding valuable abstracts from volumes sometimes 1000 pages thick that have to be scanned page by page to avoid missing something important. These documents are not systemmatically indexed. This fact, combined with the fact they are in Old Spanish, increases the difficulty of examining these works.

After abstracting, these extracts must be translated and organized in typewritten form. Quite naturally, the translations and typing are somewhat in arrears just now because it is much more important that the documents be abstracted while I have them available to me personally.

Tumacacori history around 1828-29; Missions inventories for 1772; Gran Quivira history for 1672-1678; and extensive abstracts from early American journals and diaries are among accomplishments to date. The historical research just now is at a stage where every day's work brings valuable returns, though abstracting is necessarily slow.

Finding one valuable source now seems to lead to knowledge of another. There is still lacking the material giving specific dated of construction of present structures and ruins of structures. From materials found to date, however, I have reason to believe ground plans of churches were made during the inventory work following the Jesuit Expulsion of 1767. It is

quite possible that these are somewhere among the Bancroft collections and every effort will be made to locate them. A 1643 "Historia de las Misiones de Nuevo-Mexico" has been located but it is not known how extensively it has been used heretofore by historians. This may prove highly valuable in giving details on construction of the Old Mission at Gran Quivira and of the planning for the new one.

I cannot refrain now from mentioning the fact that these inventories; descriptions of Indians of that day; methods of agriculture, mining and house construction; etc., are contributing additional material to the "human element" of the story. For example, one padre in speaking of his trials with the frontier peoples says "these Indians are disinclined to habits of thrift and in doing their gardening or in building their houses they insist upon sitting down as much as possible while working " ! The more of these descriptions we find the more able we will be to put that human element into the exhibits as they are being prepared.

While contacting numerous scholars in history in the research work being carried on numerous references have been made to the importance of the Sonora State Library in Hermosillo. It appears that in the last year an immense amount of new manuscript material(newly received)0 has been placed on deposit there. I recall a visit I made there in 1934 and even then the library contained stacks of manuscripts that seemed to run into the hundreds, perhaps thousands. I think we would do well to consider the possibility of having a Park Service representative spend a month in Hermosillo - longer if needed * in looking through this material. It doubtless contains a great deal of value on Missions and on other phases of Southwestern history of importance to the monuments.

Respectfully submitted,

Robert H. Rose

Robert H. Rose,
Park Naturalist,
Southwestern Monuments.

September 18, 1936.

Sept. 17, 1936

Mr. Hall:

This note should be considered in connection with the report I submitted earlier today on research progress.

Here are extra copies of the early American material which I thought you'd like for the research files of the Field Division. The material here is only about one third or one fourth of all I have and just as soon as I can organize the large bulk remaining, I'll forward the extra copies.

None of the Missions inventories, etc., are typed but as they are organized and typed the extra copies for Field Division use will be supplied.

Robert H. Rose.

Thwaites--Vol. XIX (1905)
(Pub. in 1845. first)
(Page 293)

Chapter VIII

Tradition speaks of numerous and productive mines having been in operation in New Mexico before the expulsion of the Spaniards in 1680; but that the Indians, seeing that the cupidity of the conquerors had been the cause of their former cruel oppressions, determined to conceal all the mines b filling them up, and obliterating as much as possible every trace of them. This was done so effectually, as is told, that after the second conquest (The Spaniards in the mean time not having turned their attention to mining pursuits for a series of years), succeeding generations were never able to discover them again. Indeed it is now generally credited by the Spanish population, (163) that the Pueblo Indians, up to the present day, are acquainted with the locales of a great number of these wonderful mines, of which they most sedulously preserve the secret. Rumor further asserts that the old men and sages of the Pueblos periodically lecture the youths on this subject, warning them against discovering the mines to the Spaniards, lest the cruelties of the original conquest be renewed towards them, and they be forced to toil and suffer in those mines as in days of yore. To the more effectual preservation of secrecy, it is also stated that they have called in the aid of superstition, by promulgating the belief that the Indian who reveals the location of these hidden treasures, will surely perish by the wrath of their gods.

Playing upon the credulity of the people, it sometimes happens that a roguish Indian will amuse himself at the expense of his reputed superiors in intelligence, by proffering to disclose some of these concealed treasures. I once knew a waggish savage of this kind to propose to show a

valley where virgin gold could be 'scraped up by the bushelful.' On a bright Sunday morning, the time appointed for the expedition, the chuckling Indian set out with a train of Mexicans at his heels, provided with mules and horses, and a large quantity of meal-bags to carry in the golden stores; but, as the shades of evening were closing around the party, he discovered--that he couldn't find the place.

It is not at all probable, however, that the (164) aborigines possess a tenth part of the knowledge of these ancient fountains of wealth, that is generally attributed to them; but that many valuable mines were once wrought in this province, not only tradition but authenticated records and existing relics sufficiently prove. In every quarter of the territory there are still to be seen vestiges of ancient excavations, and in some places ruins of considerable towns evidently reared for mining purposes.

"(Footnote: Very few mines were opened in New Mexico under the Spanish regime, and almost none before the Indian revolt of 1680. An official report of 1788 states that not a single mine of gold or silver had ever been worked in the territory, and that all the plate required for the services of the church was imported at considerable cost from Mexico.--ED.)

Among these ancient ruins the most remarkable are those of La Gran Quivira, about 100 miles southward from Santa Fe.

"(Footnote: The myth of "La Gran Quivira" is comparable to that of "El Dorado" in South America. Coronado's march (1540) was undertaken in search of a mythical Quivira. Much later the myth attached itself to the place which Gregg describes--a series of ruins in northeastern Socorro County, on a desolate mesa one hundred and fifty miles south of Santa Fe. Search for fabulous hidden treasure has been conducted there for many years. Reports of modern archaeologists, notably those of A. F. Bandelier, have proved that the city which Gregg describes was a pueblo of the Piros Indians, commonly known as Tabira. This was first visited by the Spaniards in 1581; it rendered submission to Onate in 1598, and later a priest was assigned thereto. This mission was founded in 1628, and the first church built. In 1644 a new and larger church and convent were begun, which constitute the largest of the ruins. These are not of hewn stone, but of slabs

of sandstone fastened with adobe mortar, formed with Spanish tools. The site was abandoned between 1670 and 1675, because of Apache raids. The problem of the water supply was solved by the discovery of artificial reservoirs near the pueblo. Consult A. F. Bandelier, in THE NATION, xl, pp. 348, 365; Archæological Institute of America [illegible], American series, iv, part ii, pp. 302-331; Charles F. Lummis, THE LAND OF POCO TIEMPO (New York, 1893), chap. xi.--ED.

This appears to have been a considerable city, larger and richer by far than the present capital of New Mexico has ever been. Many walls, particularly those of churches, still stand erect amid the desolation that surrounds them, as if their sacredness had been a shield against which Time dealt his blows in vain. The style of architecture is altogether superior to anything at present to be found north of Chihuahua—being of hewn stone, a building material wholly unused in New Mexico. What is more extraordinary still, is, that there is no water within less than some ten miles of the ruins; yet we find several stone cisterns, and remains of aqueducts eight or ten miles in length, leading from the neighboring mountains, from thence water was no doubt conveyed. And, as there seem to be no indications whatever of the inhabitants' ever having been engaged in agricultural pursuits, what could have induced the rearing of a city (166) in such an arid, woodless plain as this, except the proximity of some valuable mine, it is difficult to imagine. From the peculiar character of the place and the remains of the cisterns still existing, the object of pursuit in this case would seem to have been a placer, a name applied to mines of gold-dust intermixed with the earth. However, other mines have no doubt been worked in the adjacent mountains, as many spacious pits are found, such as are usually dug in pursuit of ores of silver, etc.; and it is stated that in several places heaps of scoria are still to be seen.

By some persons these ruins have been supposed to be the remains

of an ancient Pueblo or aboriginal city. That is not probable, however; for though the relics of aboriginal temples might possibly be mistaken for those of Catholic churches, yet it is not to be presumed that the Spanish coat of arms would be found sculptured and painted upon their facades, as is the case in more than one instance. The most rational accounts represent this to have been a wealthy Spanish city before the general massacre of 1680, in which calamity the inhabitants perished--all except one, as the story goes; and that their immense treasures were buried in the ruins. Some credulous adventurers have lately visited the spot in search of these long lost coffers, but as yet none have been found.

**(Footnote: In the same vicinity there are some other ruins of a similar character, though less extensive; the principal of which are those of Abo, Tegique and Chilili. The last of these is now being resettled by the Mexicans.--Gregg Comment by Ed. The last of these pueblo ruins is in southeastern Sandoval County; the first two in Valencia. Abo is of Piros origin, with a history similar to that of Tabira (Quivira). Tajique and Chilili were Tiguo pueblos built near the salinas, probably in the seventeenth century, and abandoned before 1680 because of Apache raids. The modern village of Chilili is founded on a grant made in 1841.)

CALIFORNIA MISSIONS

BARTLETT, JOHN R.

Writing of his activities on April 16, 1852, Bartlett describes his visit to the Mission of San Carlos, on the river Carmel, four miles from Monterey: (Vol. 2, p. 76)

"April 16th. This morning I got a horse and rode out to the Mission of San Carlos, on the river Carmel, four miles from Monterey. The ride was a delightful one over gentle hills, and through valleys with beautiful grassy slopes, thickly wooded with pine, fir, and oak trees. The whold country about Monterey presents a most pleasing prospect to the eye, after seeing thr parched and barren hills along the coast.

The Mission establishment, which consists of a church and the usual accompaniments of a large inclosure with ranges of small buildings, stands upon a little elevation between the hills and the sea, from which it is distant only a few hundred yards. The church which is built of stone, has two towers, containing six bells; its walls are very thick, with an arched roof, and supported by heavy buttresses. The towers, as usual differ. The adobe buildings near, were all in a state of ruin, and tenantless; not a human being was to be seen near, while the rank grass and weeds which monopolized the ground, showed that even curiosity did not often tempt visitors to its deserted precincts. One corner of the church began to show the ravages of time: its cornice had fallen, and weeds had already taken root among its opening crevices. The remains of an orchard and vineyard, are still seen near, in a decaying state. Small pine trees cover the hills within a short distance of the church; and on its other side, the ocean rolls up its waves with a dull monotonous sound, which adds to the solitary feeling of the place.

Near by, the river Carmel, a diminutive stream, to which the appellation of brook would be more appropriate, emerges from a valley between two high ranges of grass-covered hills, and falls into the sea. Up this valley I noticed ploughed fields and ranchos; beyond its higher mountains arise, completely shutting in the river on the East.

This Mission was for some time the residence of the Fathers Juniper Serra, and Francisco Palou, two of the most distinguished of the early Catholic missionaries in California. When Father P. Font arrived in Monterey, in 1777, from Sonora, in Mexico, with a body of men to strengthen the Colony at that place, he says the "Father President, F. Junipero Serra, with four other priests, came from the mission of

San Carlos to welcome us, and we chanted mass in thanksgiving for our safe arrival;" and it "was determined that we should go to the mission of Carmel, as there were no lodgings for us here." . . . He states that there were seven priests at the mission, that it was "an excellent spot, and the land very fertile."

MISSION OF SAN GABRIEL

Bartlett, Page 83; Vol. 2 April 23.

"....Being thus disappointed in seeing the Mission, I was kindly furnished by the editors of the "Los Angeles Star" with the following brief account of it, which had appeared in their paper a few days before:

"Situated in the midst of a fertile valley, surrounded with abundant timber, and supplied with a thousand springs, with an inexhaustible flow of water, the Mission of San Gabriel flourished and became exceedingly rich. Authentic records are said to exist which show that at one time the mission branded fifty thousand calves, manufactured three thousand barrels of wine, and harvested one hundred thousand fanegas (two hundred and sixty-two bushels) of grain a year. The timber for a brigantine was cut, sawed, and fitted at the mission, and then transported to and launched at San Pedro. Five thousand Indians were at one time collected and attached to the mission. They are represented to have been sober and industrious well clothed and fed; and seem to have experienced as high a state of happiness as they are adapted by nature to receive.

"These five thousand Indians constituted a large family, of which the Padres were the social, religious, and we might almost say political, heads.

"Living thus, this vile and degraded race began to learn some of the fundamental principles of civilized life. The institution of marriage began to be respected, and, blessed by the rites of religion, grew to be so much considered that deviations from its duties were somewhat infrequent occorrences. The girls, on their arrival at the age of puberty, were separated from the rest of the population, and taught the useful arts of sewing, weaving, carding, etc., and were only permitted to mingle with the population when they had assumed the characters of wives.

"When at present we look around and behold the state of the Indians of this country-when we see their women degraded into a scale of life too menial to be even domestics-when we behold their

men brutalized by drink, incapable of work, and following a system of petty thievery for a living, humanity cannot refrain from wishing that the delapidated Mission of San Gabriel should be renovated, its broken walls be rebuilt, its roofless houses be covered, and its deserted halls be again filled with its ancient industrious, happy, and contented original population."

SAN LUIS REY

Bartlett, Page 89; Vol. 2

Bartlett writes of a visit he made to San Luis Rey in the few weeks following April 24, 1852. Page 90 contains an illustration showing the mission and the vast arcades in position. One would infer that the mission and all of these colonades, now in ruins, were than in a pretty good state of preservation.

"While the preparations were being made for our journey, I made a brief visit to the Mission of San Luis Rey, forty miles north of San Diego. This is the latest of all the California missions, and was founded in 1798. It stands in a rich valley, from one to two miles wide, and is about three miles from the ocean, being separated therefrom by a ring of hills. Of all the missionary establishments in the State, this possesses the most extensive as well as the most imposing structure. It is built of adobe, although stone and brick are used in some portions of it. It faces the south, and has a front of five hundred and thirty feet, the greater portion of which exhibits a colonnade of some architectural beauty, although but sixteen or eighteen feet high. On the front is also a chruch ninety feet in depth, with a tower and dome. North and south, the dimensions are upwards of sixteen hundred feet. This vast space included every thing that appertained to the mission. On the south-eastern corner is a small Sampo Santo. Next comes the church with the priests' apartments immediately adjoining, and a small inclusure, or garden, shut in by the church walls on one side and by the main building on the other. This garden was handsomely laid out, and still contains a variety of fruit and ornamental trees. The main building is about three hundred feet square, with a colonnade in front. In the interior, is an open area of the same dimensions, with a beautiful colonnade all around. In the interior, of this was a garden; but the only plant of interest that remains, is a pepper tree. This stands in a curcular bed elevated

four or five feet above the area, and is protected by a wall.

On the four sides of this extensive area are double rows of apartments, some of which are very large, including reception rooms, dining halls, sleeping apartments, kitchen, etc. In the rear were corrals or inclosures for cattle; so that every thing appertaining to this vast establishment might be brought within its walls. It is all in a good state of preservation except the north-west corner of the area, where the roof has fallen in. Some of the cattle yards and stables are also out of repair. But the church, and nearly all the apartments occupied for dwellings are still habitable.

This establishment had been abondoned with most of the other Californan missions; but when the United States became the possessors of the country, several claimants sprang up for it, and its valuable lands adjacent, some resting on purchase, pretended or real, and some on other grounds. It is said to have been purchased by some native Californians from the government about the time the country was changing owners, who sold it to the Americans. Its ownership will be settled by the Board of Land Commissioners appointed by the United States government for the purpose. In the mean time General Hitchcock, commanding the Pacific Division of the U. S. Army, has placed a file of soldiers here, to protect the property and keep off plunderers and squatters.

I remained here two nights, accompanied by Dr. Webb and Mr. Pratt, artist of the Commission, and was hospitably entertained by the Sergeant in charge; the officer in command being absent in San Diego. In such a place as this, with such a range of buildings and cultivated grounds, a prince or a nabob might luxuriate to his heart's content. Near by is an extensive orchard and garden, inclosed with high walls, and filled with every variety of fruit-trees; but the acequias or irrigating canals, had been neglected, the dams and embankments washed away, and the beautiful gardens and shady walks, where the devotees passed the long hours when not attending to their religious duties, were all overflowed. A swamp filled with rushes and rank weeds had taken possession of these walks and groves; and here the screaming heron and other water fowl had theri hiding-places

The Sergeant, at my request, sent for an old Indian of the neighborhood, who called himself a chief. On learning that an officer of the U. S. government wished to see him, he made his appearande

with three others of his tribe. The old man presented himself in the dress of a Mexican officer-a blue coat with red facings trimmed with gold lace, and a high military cap and feather. He was quite communicative, and answered my questions readily. In giving me the words of his language, he enunciated them with great distinctness, and would not be satisfied with my pronunciation until all could at once recognise the word. When I had completed my vocabulary, and read off the native words, he evinced great pleasure as he repeated the corresponding word in Spanish, occasionally exclaiming Bueno, or Muy Bueno! He called his tribe the Kechi.

On inquiring as to the state of things when the padres were here, the old man heaved a deep sigh. He said his tribe was large, and his people all happy, when the good fathers were here to protect them. That they cultivated the soil; assisted in rearing large herds of cattle; were taught to be blacksmiths and carpenters, as well as other trades; that they had plenty to eat, and were happy. He remembered when three thousand of his tribe were settled in the valley, dependent upon or connected with this mission. Now he said they were scattered about, he knew not where, without a home or protectors, and were in a miserable starving condition. A few hundred alone remained in some villages up the valley, a few miles from the mission. He spoke with much affection of Father Peyri, its original founder, who had resided here for thirty-four years. At no time, he said, were there more than sixteen Spanish soldiers here, who occupied a building facing the mission, which is still standing.

Father Antonio Peyri took possession of this Mission of San Luis Rey (i.e. St. Louis the king) in the year 1798. He first built a small thatched cottage, and asked for a few cattle and Indians from the Mission. At the end of his thirty-four years residence, he left it stocked with nearly sixty thousand head of domesticated animals of all sorts, and yielding an annual produce of about thirteen thousand bushels of grain. After so many years of successful labor, in which he expended the most valuable part of his life, the worthy Father left his mission with only what he judged sufficient means to enable his to join his convent in the city of Mexico, where he threw himself on the charity of his order. The toil of managing such an extablishment, would be sufficient motive for a man of Father Peyri's age to retire; but the new order to things, which had introduced new men and new measures, accelerated his resignation. Whatever his

motives may have been, his voluntary retirement in poverty, to spend the remainder of his days in pious exercises, must be applauded by the religious; and his noble disinterestedness by all.

Mr. Alexander Forbes, who met the venerable Peyri, and who has given us this account of his history, thus closes his remarks on this mission, and the affection entertained by the Indians for their pastor: "The best and most unequivocal proof of the good conduct of these Fathers, is to be found in the unbounded affection and devotion invariably shown towards them by their Indian subjects. They venerate them not merely as friends and fathers, but with a degree of devotedness approaching to adoration. On the occasion of the removals that have taken place of late years, from political causes, the distress of the Indians in parting with their pastors has been extreme. They have entreated to be allowed to follow them in their exile, with tears and lamentations, and with all the demonstrations of true sorrow and unbounded affection. Indeed if there ever existed an instance of the perfect justice and propriety of the comparison of the priest and his disciples to a shepherd and his flock, it is in the case of which we are treating. These poor people may indeed be classed with the "silly sheep" rather than with any other animal; and I believe they would, in the words of the poet, even "lick the hand though it was raided to shed their blood"-if this were the hand of the friar."

SAN DIEGO MISSION

Bartlett, John R.

Between April 24, 1852 and the middle of May, Bartlett visited San Diego Mission. We quote from Vol. 2, Bartlett's Narrative, beginning page 100:

Another interesting account of San Diego is contained in a letter written by Father Junipero Serra to Father Palou, in the year 1769, when the former landed here for the purpose of establishing the mission.

"My dear Friend and Sir:--Thank God, I arrived the day before yesterday, the first of the month, at this port of San Diego, truly a fine one, and with reason famous. Here I found those who had set out before me, by sea as well as by land, excepting such as died upon the way. The brethren, Fathers Crespi, Biscayno, Parron,

and Gomez are here, and, with myself, all well, thanks be to God. Here are also two vessels; but the San Carlos is without seamen, all having died except one and the cook. The San Antonio, although she sailed a month and a half later, arrived twenty days before the San Carlos, losing on the voyage eight seamen. In consequence of this loss, the San Antonio will return to San Blas, to procure seamen for herself and the San Carlos. The causes of the delay of the San Carlos were, first, the want of water, and, second, the error which all were in respecting the situation of this port. They supposed it to be in thirty-three of thirty-four degrees north latitude; and strict orders were given to Captain Vila and the rest to keep out in the open sea till they should arrive in thirty-four degrees, and then make the shore in search of the port. As. However, the port in reality lies in 32°34', according to the observations which have now been made, they went far beyond the port, thus making the voyage much longer than was necessary. The people got daily worse from the cold and the bad water; and they must all have perished, if they had not discovered the port about the time they did; for they were quite unable to launch the boat to procure more water, or to do any thing whatever for their preservation. The Father Fernando did everything in his power to relieve the sick; and although he arrived much reduced in flesh, he had not the disorder, and is now well. We have not suffered hunger or privations, neither have the Indians who came with us; All have arrived fat and healthy. The track through which we have passed is generally very good land, with plenty of water; and there, as well as here, the country is neither rocky nor overcome with brushwood. There are, however, many hills, but they are composed of earth. The road has been in many places good, but the greater part bad. About half way, the valleys and banks of rivulets began to be delightful. We found vines of a large size, and in some cases quite loaded with grapes; we also found abundance of roses, which appeared to be the same as those of Castile. In fine, it is a good country, and very different from that of Old California. We have seen Indians in immense numbers; and all those on this coast of the Pacific contrive to make a good subsistence on various seeds, and by fishing; This they carry on by means of rafts, or canoes made of tule (bulrush), with which they go a great way to sea. They are very civil. All the males, old and young, go naked; the women, however, and even the female children, were decently covered from their breasts downwards.

We found in our journey, as well as in the places where we stopped, that they treated us with as much confidence and good will as if they had known us all their lives; but when we offered them any of our victuals, they always refused them. All they cared for was cloth; and only for something of this sort would they exchange their fish or whatever else they had.

"From this port and intended mission of San Diego, in Northern California, 3d July, 1769. I kiss the hands of your Reverence, and am your affectionate brother and servant,

"Fr. Junipero Serra."

Six miles from the town of San Diego, following up the valley, is the venerable Mission of the same name, a spot possessing great picturesque beauty, and surrounded by fertile and well watered lands. It was the last of the California missions that was abondoned; and but five years ago its ancient library and its priest still remained. The buildings, which are of adobe, are not extensive, but are in good preservation. They possess more of an Oriental appearance than any similar establishments. There was formerly a large vineyard and orchard, containing figs, peaches, etc., a portion of which is still in existence. The place is celebrated also for a flourishing orchard of olive trees, which still remains, yeilding a great abundance of olives, the excellence of which we had an opportunity of testing on our homeward journey. The mission is at present occupied by United States troops, under the command of Colonel J. B. Magruder, and in consequence is kept in good repair.

SPANISH MISSION AT YUMA

Bartlett, John R.

Writing on June 16, 1852, Bartlett says: (page 161)

Close by Fort Yuma the traces of the old Spanish Mission buildings may still be seen. These consist of partly demolished stone walls of small buildings; though a few years since the walls of a church were also visible. At the time of our visit these had been removed, and used for building the barracks. There were two hundred soldiers, artillery and infantry, here, under the command of Major Heintzelman. The officers and men were living in tents, covered with sheds made of branches to protect them from the sun. The post was established the year previous, but, not receiving the

usual supply of provisions, had been abandoned for several months . The command was as comfortably situated as the nature of theplace and its inaccessibility would allow; but long deprivation of fresh provisions and vegetables had engendered the scurvy among the soldiers.

TRANSLATION

REYS' INVENTORY OF SAN XAVIER

CHURCH PROPERTY.

(REYES:-BISHOP OF SONORA-INVENTORIES MADE JUST AFTER JESUIT EXPULSION)

July 6, 1772

"The town of San Xavier del Bac is situated on a plain, abounding in waters (streams) and good lands, where the Indians sow some short plots of wheat, corn and other seeds; the church is of middling capacity, ornamented with two colaterales(?) (wings?) (or canvases?) of linen with their borders gilded.

(la iglesia es medianamente capaz, adornada con dos colaterales de lienzos con sus marcos dorados). The sacristry (or vestry) with four chalices, two of them inservicible, a custodia, an incensory (thurible), an extra conventual dish, and all-silver mass wine vessels (vinageras, i.e., vinajeras) four vestments of various colors, with other ornaments of altar and divine worship, all very poor. By the census which I have now there must be 48 families, 7 widowers, 12 widows, 26 orphans and the number of (all) souls 270.

The town of visit, San Jose del Tucson is situated 7 leagues north of San Xavier. It has neither church(about 1770) nor a house for the missionary. Because of the fertility of the soil a large number of Christian and Gentile Indians are united and congregated in the form of a town. It has not been possible to make a census, but it stands to judgement(reason) that the heads of families are more than 200."

CATALOGUE

of

GALLATIN'S HISTORICAL AND GEOGRAPHICAL MSS.

* * * *

In the year 1826 Mr. Gallatin, historian, geographer, and naturalist, native of Switzerland, arrived in Mexico for the purpose of making researches in that republic. He died near Astoria in 1851. The result of his extensive labors are in manuscripts, now deposited at the Smithsonian Institution, together on account of information of the country west of the Rocky Mountains.

The following is a brief catalogue of the MSS.:

Travels in Mexico and Texas, 1826 to 1834, inclusive. Containing notes upon the statistics, early settlements, and Indian tribes between the Rhine and Pacific, &c., &c., &c.—7 vols.

Travels in Mexico, 1788-'93. Comprising interesting notes of the early settlers of Texas, by the Spanish and French; account of the ancient Indian tribes, &c., &c.—3 vols.

Geography and statistics of the republic of Mexico.

History of the Indian tribes that formerly ranged from the Rhine to the gulf of California.—2 vols.

Notes upon the different Indian tribes of the ancient republic.—1 vol.

Vocabularies of different tribes bordering the Rio Grande.—1 vol.

Of the Cherokees, Harrison.—1 vol.

Of Indians that formerly lived in the northwest of Texas.—1 vol.

Of different tribes in the neighborhood of the Missouri.—1 vol.

Travels of the Tennessee, 1811.—1 vol.

Indian communications of the priests.— 1 vol.

of the Texian Indians. Unit.—1 vol.

Indians of Texas and Coahuila; fertility of their soil, &c.—1 vol.

Medicine of the ancient and modern Indians of Mexico.—1 vol.

Paintings of thirty different Indian tribes.—1 vol.

History of the agriculture of ancient and modern Mexico.—1 vol.

Revolutions of the ancient Provinces, 1772.

1.—Travels in Tamaulipas and New Leon, 1864.

2.—Travels in Tamaulipas, San Luis Potosi, 1846.

3.—Travels in the country west and south of Matamoras, 1847.

The above vols., 1, 2, 3, of travels, give an interesting history of the country adjacent to the Rio Grande.

March and sojourn of the American army from Corpus Christi till the occupation of Matamoras.—1 vol.

Geographical Gazetteer of the territory lying between the Nueces and Pacific, comprising a history of places, situations, positions, &c., &c.— 1 vols.

Geography of ancient and modern Mexico.—1 vol. notes.

Geography of Puebla, Mexico, Vera Cruz, Oaxaca. Position of places in the above archbishoprics.—1 vol. notes.

Diary of the Commission of Limits in Northern Mexico, 1850.—2 vols.

Diary of Gen. Rivera, New Mexico and Texas, 1828.—1 vol.

Gen. Limits, Geography and stat. Narratives, &c., &c., by various authors, with notes by Commission.—Notes.

Astronomical observations made in Northern Mexico, Texas, &c.—4 volumes.

Dictionary. Geology of the rocks and minerals between the Nueces and Rio Grande.

Upon the Meteorology of Texas and the valley of the Rio Grande, comprising some important deductions in the science.—12 vols.

Observations, barometer, pendulum.—3 vols.

Manipulations upon the waters of the Lower Rio Grande, &c., &c., &c.—Letter.

Maps of Texas accurately and scientifically projected by Bernardin, member of the Geographical Society, viz: Tamaulipas, Vera Cruz, San Luis Potosi, Nuevo Leon, Durango, Chihuahua, Oajaca and adjacent country. Gulf of Mexico, vicinity of Vera Cruz.

Maps in MSS. of journeys, routes, valleys, defiles, suburbs of towns, villages, &c., &c., of the country lying between the Nueces and Rio Grande and valley of Mexico.

1.—Topography of routes and sections in New Leon, Tamaulipas, San Luis Potosi, made in 1844, with distances.

do. do. from San Luis to Potosinio, distances, &c.

do. do. from Matamoras to Morelos, Oajaca, &c.

2.— do. from Victoria to Tampico, note in Morison Contender.

do. Matehuala to Tequille, Tula Tamee to Victoria.

do. Tampico to the city of Mexico.

do. Tampico to Matamoras, accompanied with notes.

3.—Topography in detail of the route from San Antonio to Laredo, in Tamaulipas, &c., &c.

Of the country between Matamoras, Burrenias, Mesquite, Carrizal and Guadalupe, Tamaulipas. Survey of the Rio Grande from the mouth to San Alberio, place of Presidio, &c., &c. Maps and topography of different portions of the country south of the Rio Grande, between Matamoras and San Fernando. 12 MSS. Tampico and its environs, Lower Tamaulipas, San Patricio

and Vicinity, city and environs of Tampico, plans of Tamaulipas, of different sections of the State, &c., &c., and 13 maps in MSS. Various routes of ancient Texas, giving positions of the Indian tribes that formerly inhabited Missions. Different plans of the Forts, sections, ancient maps, &c., &c. 23 maps in MSS.

Upper Tamaulipas, Coahuila, N. Leon, with topography in detail of various routes in the centre of the Republic, town and environs of the coast south of Tampico Santiago, &c., &c., &c. 23 maps in MSS.

Maps of different portions of the coast between Tampico and River Coatzacoalco, 6 MSS.

Department of Oriziava, Jalapa, Cartas of Cordova, Orizava, Coatzalcoyan, plan of Cordova and Fireys cities, &c.; of the Isthmus of Tehuantepec; State of Mexico, of the Lakes, Valley, Temuyo, Queretaro. The Huastaca, San Luis, routes through the Sierra Madre east and north, valley of Vermilla, Matamula to the north and east, &c., &c., 16 MSS.

Topography in detail, of the country lying between San Luis and San Fernando, Gulf coast, &c., &c., 6 MSS.

Submitted by R Hyde Aug. 1935

C-4

Story

of an excursion to the ruins of Abo, Quarai, and Gran Quivira, in New Mexico, under the command of

Major James Henry Carleton, U. S. A.

Wednesday, December 14, 1853.

A squadron of cavalry, formed of company "I," first dragoons, commanded by First Lieutenant Lorenzo D. Thomas, and company "K," first dragoons, commanded by Brevet Major James Henry Carleton, in all one hundred strong, with one 12-pounder mountain howitzer, left Albuquerque, at eleven o'clock this morning, on an expedition to explore the country around the ruins of Gran Quivira, New Mexico, and for other objects connected with the bands of hostile Indians who often infest that portion of the territory.

Our route, for the first forty miles, lies down the left bank of the Rio Grande. This part of the country has often been described. The principal features are easily traced. The Rio Grande, at this point, averages about one hundred yards in width, and not more than eighteen inches in depth. Its waters are turbid, like those of the Kansas. The bottom and banks are composed of sand. The valley along the river is very level, and usually not over two feet higher than the surface of the water. In some places it is more than one mile wide. It has a great deal of sand mixed with the soil; but it is reasonably fertile. From this valley a second bottom, or table-land extends, by a gradual ascent, back to the mountains on either hand. This table-land is destitute of water and presents sterile. The lower level, which skirts the river, and which is irrigated from it, is the source of nearly all the agricultural wealth of New Mexico.

A story of ruin which owes no yesterday sentiment, almost without interest. For the sake of last night and until late this morning; to make

ure, therefore, very cold. In consequence of the heaviness of the travelling, the equatrum was encamped near the residence of an Austrian gentleman, named Reisel, seven miles and a half below Albuquerque. Here we are able to obtain wood and hay; but we are obliged to send across the Rio Grande to purchase corn.

Thursday, December 13, 1849.

About four o'clock this morning it commenced snowing, with a piercing wind from the north. Our poor horses, exposed to the inclemency of the storm, were soon chilled and trembling with the cold. By eight o'clock the weather began to moderate; but we had snow-squalls, from different points of the compass, for the whole forenoon. Before we reached a little hamlet, called Valencia, fourteen miles and a half from our camp of yesterday, we encountered a shower of rain and sleet. It is in this place we could get two corrals, wherein our horses could be partially sheltered, it was decided that we should encamp here for the night. The weather seems singularly unpropitious for an expedition. It is said to be quite unusual to have these storms in New Mexico at this season of the year. To-night, however, at nine o'clock, the clouds have all left the heavens, and we have promise of a fair day to-morrow.

Three Mexican citizens of respectability, a Mr. Davis and two of his sons-in-law, came to our camp this evening, and informed Major Carleton that it was their intention to establish a colony of settlers at a point west of a range of mountains known as the Sierra Blanca, and they were anxious to be allowed to accompany the Seven Rivers; that they proposed going with this command as far as Fort Stanton; and that from that point to the Seven Rivers they desired to be furnished with an escort of dragoons. They

were informed that Colonel Lieutenant Colonel Dunlap, of the army, was about to proceed from near Fort Ann, with three companies, directly to the country in the neighborhood of the Green Mines, and, if they chose to do so, they could have the advantage of his protection. Mr. Davis resolved to go by the way of Grand Canyon, at all hazards; and to proceed across the country, from that point, even without an escort. The truth doubtless is, the old gentleman fancies that the purpose for which this expedition is going into that country is to search for a great amount of treasure that was said to be buried beneath the ruins there, and he hopes he may be able to obtain a share of them.

Friday, December 18, 1863.

The weather became very cold last night; all the pools of water standing up and down the valley are frozen over, and the ground is hard and resounds loudly at the tread of the column. The cottonwoods along the river seem to be covered with green, dusky, and brown, which have been driven by the ice from the lagoons and sloughs. They are so tame they hardly fly at our approach.

We arrived at a little town, called Fort Colorado, about four o' clock this afternoon. This place is thirty-nine (39) miles from Albuquerque. Here our road leaves the river for the mountains toward the point east. As it will take two days to march to Socorro, the next and last point where we can procure any corn, we are encamped for the night; and shall here buy, and haul in our wagons to-morrow, the forage our animals will require to that town.

The citizens of Fort Colorado gave a ball this evening in honor of our arrival. The sudden arrival amongst them of so many armed men is a

matter of great astonishment.

The result of our observations, as regards the general appearance of the inhabitants of the country, made during these first forty miles of our march, may be stated in a few words. The dirty little villages through which we have passed, as well as those we have seen in the distance, have generally turned out their inhabitants en masse to get a sight at us. This gave us a sight at them. Had we been painters it would doubtless have been an interesting one; for men, women, children--nearly everything--mobilized themselves to see us pass; pictures, as well as in every gateway. Here blanketed, with coolness and dignity; here with distended and here with screwed-up faces, here with rebozos, here nearly naked, here an brown-eye shading their eyes with their hand, and here peering through chinks and crannies in the mud walls of their dwellings; but all curious as to those we are and whither we were going. The national expression of idle sole appeared deeply written on every face. In no single hr village have we seen a solitary indication of industry, cleanliness, or thrift since we left Albuquerque; and it may be remarked, parenthetically, that we have yet to see, in that town, the first evidence of these cardinal virtues. Dishonesty, squalid poverty, filth, and other lameness of everything beyond their mere habits and necessities, seem to particularly characterize the inhabitants who are settled along the east bank of the river. We have seen nothing decidedly wrong on the part of any one, save that shown by the citizen Chavis and his two sons-in-law. On the contrary, we could not observe except them that seemed to be a universal proclivity for rags, dirt, and filthiness, in all things, with sheer laziness and listlessness set in their every movement and ill

that they do. It may be said that the people whom we met were of the lower order; but we were justified in coming to that conclusion from not seeing any of the better class.

Saturday, December 27, 1890.

We started this morning at eight o'clock. For about two miles our road lay up a gradually inclined plane, where we went sometimes on an almost level road that stretched mid-mountain, westward to the head of those mountains which commence at the Straits and extend towards the south below Mt Paso del Norte.

This plain is sandy and entirely destitute of water. We met several herds of cattle grazing upon it; but, so far as we could observe, there was very scanty pasture. Just ahead, a horseman, in answer to the call from our herds was driven to the Rio Grande for water only once in two days. We met a military flock of sheep, numbering some ten or twelve. This was midway between the river and the mountains.

The scenery, viewed from elevated points on this plain, was very beautiful. The bosque and the thicketts margin of cottonwood, and the distant peaks of others toward the north, were covered with snow, and glowed in the sun with dazzling splendor. The long ridges towards which we were now moving were also clothed in a winter-robe of white. They bounded the whole eastern horizon. Their bold summits cut jagged outline, like a fringed cloud, standing there out clearly defined against the morning sky, glazed in the light as if burnished with silver. While towards us, along their whole eastern slope which descended toward the plain as a court towards the ocean the valleys and precipices seemed in cold blue shadow, chilly enough to make the beholder shudder in looking upon them.

Just before arriving at the foot of these mountains, we found a pool of water four hundred yards to the right of the road. Our guide informed us that in the dry season no water can be obtained at this place.

There are here two passes through the mountains; the one on the left hand going eastward, leading through a difficult ravine, is practicable only as a bridle path; the one on the right hand affords every natural facility for making a most excellent road for wagons.

These passes are known, in the language of the country, as los Puertos de Abo. The summit of the right hand pass is nineteen miles and sixty-three yards from Cuna Moloosh, and lies west 6½° south from that town. The road for this whole distance is by far the finest we had seen in Nu Mexico, and is not surpassed, in any point of accordance, by the celebrated chaussee at New Orleans.

The first outcropping of stone which we observed as we ascended the mountains was of quartz, trap, and greenstone. These are succeeded by successive strata of fossiliferous limestone, of good quality. These strata in some places are hundreds of feet in thickness. This latter formation prevails exclusively at the summit of the pass.

There is no timber of any kind to be met with until you draw near the top of the mountains; the growth there is entirely of dwarfish pinon and stunted cedar.

We encountered snow half way up the pass. The scene presented by the column winding its circuitous route to the summit, with parts of it lost to view behind some jutting crag, or just emerging into sight from some deep gorge-the foreground filled with the dragoons moving upon different

turns of the road, the sun glancing harshly on their equipments,-the towering snow-clad peaks on either hand-the bank around the valley of the Rio Grande, with the distant mountains in the northwest rearing with a serrated line the far off horizon-was a picture whose beauty will not easily be forgotten.

The general direction of the chain of mountains stretching northward of the pass toward Santa Fe is north 20° west. The first elevated peaks southward of Sandia are called La Tetilla; the next La Sierra de la Manzana; then come Los Huertos de Abo; and then the high range still further south which is known as La Sierra del Pilo Duro.

From the summit of the pass for the first two or three miles the road is very circuitous. It then has an easy general descent for about three miles further, when you come to a deep ravine which lies entirely to the left, but in sight of the road, and at a distance from it of six or eight hundred yards. There, in the ravine, good sweet water is always found. This place is called Agua de Juan Lujan. Near this, but a few hundred yards further east, we passed a large corral of salt water. It is known by the Mexicans who travel the road as La Salada. Passing this, we next encountered, for some three or four miles, beds of dark chocolate-colored sandstone, through which we wound our way to a point where the roads forked. We took that which leads to the left hand. In less than half a mile, our road lying up the dry bed of a water-course, we came to a fine streamlet of fresh water. This was fringed by a beautiful grove of cotton wood. At the distance of four hundred yards, after we struck the water, we came to the Ruins of Abo. Here we encamped for the night.

At this time, when so many surveys & routes from different points

along the Mississippi toward the Pacific, with a view of ascertaining the best route for a railroad to, perhaps the suggestion may be of value that the base of the others advantages in this respect which may not be found in any of the other passes through these mountains. They are certainly of sufficient consideration to make it an object to have this pass thoroughly explored before others shall be adopted. By direction the route then across Utah, on the Green river, immediately past the Point of Rock, and thence through the ocean by which the railroad line that has already been spoken of. The main plain in the great valley of the Rio Grande can be reached without travelling a road, and with no more difficulty as to the blasting of rocks and grading than is available, than has been encountered on any of the ordinary railroads in the United States. Let the road be directed across the plain so as to pass the Rio Grande a few south of the Green river, thence up the valley of that river to its east bound, and up the valley of that branch to Larson; thence to Taos, and from that point by the route which the indefatigable Gunnison will without a doubt, be shown of the Pacific. These suggestions may possibly be of practical utility to those who are engaged in by the resident enterprise of modern times.

The Palace of the convent of a large church, and the ruins of many other buildings, which are now but little else than long heaps of stone, with here and there portions of walls projecting above the surrounding rubbish. There is yet standing enough of the church to give one a knowledge of the form and architecture of the building when in its prime. The ground plan of this structure is in the form of a

arena, its individual diameter being within two degrees of the magnetic meridian. It was, perhaps, situated on city area that meridian when the building was erected-the variation of the compass accounting for the present difference. The great entrance was in the eastern end. From thence to the head of the arena, where the altar was doubtless situated, it is one hundred and thirty-two feet, inside. This,the area of the church, is thirty-two feet in width. The short axis of the arena, or that in proximity is called the transept is forty-one feet in length and twenty-three in breadth. The transept is sixty-six feet from the doorway. These measurements were made with a tape-line in a very dark place. The exact distance in feet was, therefore, only given, as had either the fractional parts of a foot.

The walls are of a great thickness, and their height is, at this day, in over half the structure, all of fifty feet. The upper edge of these walls is cut into battlements. The church, as well as the neighboring buildings are in ruins about it, was built of a sandstone, dark red exclusive, and is seen not since the great and ruins its appearance on the sides of the surrounding hills. The pieces of stone do not measure over two and a half inches in thickness, and are not generally over one foot in length. Each piece is of the rock it had the it was broken from its native bed. We saw not a single dressed stone about the ruins. These stones are laid in mortar made of the ordinary soil from the ground immediately at hand. The roof of the church was evidently supported by beams and covered with earth, as in the churches still occupied as places of worship in Mexico and New Mexico. As was an idea of an arch, and a

indication that those who planned and built the church at Abo were at all acquainted with architecture as a science. The walls over the doors and windows, so far as we could observe, had been supported by beams of wood. When these had become destroyed, those stones which were liberated above had dropped down; so that now, over each window there is a rude sort of Gothic arch, owing its form, not to design, but to accident. The wood-work of the church was evidently destroyed by being burnt. Wherever in the walls portions of beams still remain they are found charred and blackened by fire.

The form of the church alone, proves it to have been designed by Christians. Perhaps the workmen employed in its construction were Indians. We saw a distinct mark on an axe in one of the pieces of timber, which is imbedded in the east wall of the church some six feet from the ground. Axes also were doubtless used, but we discovered no marks of them. The stick of timber marked with the axe, and some beams that supported a landing at the head of the stairway which is made in the west wall, were the only pieces of wood about the ruins which were not burned so much over their surface as to obliterate all marks of tools.

The extent of the exterior wall, which, from the appearance of the present heaps of stones, once surrounded the church and the town, was about nine hundred and forty-two feet north and south, with an average width east and west, of say four hundred and fifty feet. A large population must have occupied this town and its neighborhood, if one were to judge of the number of people by the size of the church built to accommodate them at their devotions.

We saw few, if any, unmistakeable signs that the ground had been cultivated in the vicinity of these ruins. Nor is there any good arable land, so far as we could observe, at any point nearer the Rio Grande; for uplands to be

arable, in the climate of the region, must be so situated as to be capable of irrigation. The stream of water at Abo is in a deep ravine. It is very inconsiderable in point of size, and lows itself in the sand in less than five hundred yards below the springs which feed it. The adjacent country is rolling and broken, and covered with stone and ashes. The subterranean rocks are secondary red sandstone. The sides of the ravine and neighboring eminences are composed of very large stones filled with marine fossils.

It was nearly night when we reached Abo. There was a keen freezing gale from the northeast, and the whole appearance of the country was cheerless, wintry, and desolate. The old ruins, standing there in solitude, had an aspect of sadness and gloom. They did not seem to be the remains of an edifice dedicated to peaceful, religious purposes, a place for prayer, but rather be a monument of crime, and misfortune, and violence. The cold wind blew at its height appeared to sweep and howl through the roofless pile like an angry demon. But when at times it died away, a low sigh seemed to breathe along the crumbling battlements; and then it was that the noise of the distant brook rose upon the ear like a wail.

In the mystery that envelopes everything connected with these ruins as to when, and why, and by whom, they were erected; and how, and when, and why, abandoned--there is much food for very interesting speculation. Until that mystery is penetrated so that all these questions can be answered without leaving a doubt, the balance to the merits of success and fancy; and it will be for the poet and the painter to restore to its original beauty this venerable temple, to rebuild its altars, and to exhibit again amid its sacred precincts, its burning censers, its kneeling crowd here.

Sunday, November 10, 1907.

It took us until half past nine o'clock this morning to complete our examination of the ruins. We then rambled over a portion of, in places, broken country twelve miles 720 yards, and in a general direction of N. 15° E. For the sake of this distance the country is covered with groves of cedar and pinon trees. We then came to the Ruins of Awatu. These appear to be similar to those of Abo, whether regarded with a view to their extent originally, the skill exhibited in their construction, their preservation at the present time, or the material of which they are built. They too are situated upon a small stream of water that soon disappears in the earth.

The church at Awatu is not so large by thirty feet as that at Abo. We found one room here, probably one of the cloisters attached to the church, which was in a great state of preservation. The beams that supported the roof were blackened by age. They were square and smooth, and supported under each end by shorter pieces of wood carved into peculiarly curved lines and scrolls, like similar supports which we had seen at the ruin of Jemez in honor of the better times in Old Mexico. The earth upon the roof was sustained by small straight poles, well finished and laid in herring bone fashion upon these beams. In this room there is also a fire-place precisely like those we found in Mohawk houses at the present day.

We had heard that in a stone vault inserted in the front end of the church at Awatu we should find entombed the fleur-de-lis, the ancient heraldic bearings of Spain; and many therefore supposed that possibly this church had been erected by French Catholics who had come as missionaries across the country from the Gulf of New Orleans. But we saw no pencil, no fleur-de-lis, and no stone of any kind, that bore marks of a chisel or of a tracer.

ry plaza in the church, in the clubhouse, and in the fabric of a neighboring
lace, was in the same rough form which it had then it was broken from the
ary.

The course from Lampa to the town of Umayuma is, N. 30° W.; the distance
four miles 1, 240 yards. To our first encounter at a very great elevation.
whole country is clad in a winter garb. The hills above de Los Umayumas,
the towering pyramidal peaks called los Cotillos, rises with a degree, it
will, of more than ten feet of snow.

The town of Umayuma is situated at the base of the skirts of that range, and a
ll rivulet which, in running eastward to the open plains, soon sinks into the
and. Several dams are constructed along this rivulet, to collect and retain
water for purposes of irrigation. The town is built partly of logs set on end
l fashion, with the interstices filled with earth, and with roofs covered
earth, and partly of adobes. It wears a very dilapidated aspect, wretched,
mult even, as a practical antithesis to the words of the inhabitants; for
ese enjoys pre-eminently the self-opposed notoriety of being the equal of more
erous, rubbish, narrow lanes, cornfields, and vile wretched ruins than
be found in any other town of the same size in the Andes, which is saying a
deal about Umayuma. Fortunately it contains but few inhabitants, not more
five or six hundred at most. It is not an old town. When the first settlers
here they found two groups of mule-trees, one just above the site now occupied
he town, and one just below. Tradition says these trees were planted at the
time and hence were inherited; and yet, tradition has lost all trace of when
time was. It is said the Catholic church has lost all trace of when that time
It is said the Catholic church of the Andes claims that they were planted
the priests, but while that it has no records or authentic traditions about the
we have visited. They claim, however, that some priests did this at some period

or other, is good enough to authorize her to form out these two orchards yearly as we were informed, to the tune of $1000. One of the largest trees in the lower grove were found to be respectively eight feet six feet in circumference. The largest was thirteen were shell of an inch of two in thickness. These trees have a venerable appearance. They have never been pruned, and have, therefore, grown crooked and scraggly. Many of them are much smaller than those which were removed. They have grown, sometimes, from seeds which have fallen from the older ones. The way this process of self-planting has been kept up, of course, no one can know. Apple trees are not indigenous to New Mexico, leaving it to be true, however, that the largest of these trees were planted at the period referred to, then the ruins of the old houses are more than two centuries old.

These two groves, or rather these two clumps of trees, are not standing regularly in rows and orchard-like; on the contrary, they are crowded together in the most irregular or natural manner.

The name of this town, and of the townships there to the west of it, was adopted from finding these orchards here; Manzano being the Spanish for apple, and therefore the botanical name is that because for apple tree. The name of the town is quite incidentally in to its early development for Mexico.

Directly about Manzano, and up the slope towards the high mountains west of the town, there is a plain reach many miles in extent, of most excellent timber for house and for building purposes. Five twenty-five of thirty miles in an easterly direction there is a large salt lake, which has no outlet. This lake supplies nearly the whole of the upper portion of the territory with salt. There are five main leading towards it from different directions. We were informed that the bottom of the lake is covered with a sheet of solid salt, which, in the dry season, is some three or four inches in thickness. When the rainy season

ents in, filling the lake with fresh water drained from the surrounding country, this sheet of salt is said to dissolve down to half its thickness. We were not prepared to examine and visit this lake. It lies directly off our route, and has neither wood nor fresh water within many miles of it. The proper time to go to it would be during the rainy season and then there is grass.

We had procured orders from the Navajo Council of New Mexico for what corn we should require at Hermann-corn which had been paid in by the peasantry as tithes (diezmos) to the Catholic church. When we arrived there, we found that the corn belonging to the church was some six or eight miles off, at the town village, called Torreon. So we were forced to buy on credit that corn we required.

Here we learned that a small party of Navajos had recently been at the ruins of Pueblo Bonito in search of treasures. Whilst there they sent an Apache Indian in to Hermann for some articles they wanted. An American named Fry, a hunter, who lives at Hermann, went out to the ruins in company with two Navajos to see these Navajos; when he reached there he found them gone. He ascertained this he was sure that there was no water to be found at a pool where our Navajo guide expected we should find it, as it had dried up; and that unless we found another small pool some six or eight miles from that, and which our guide knew nothing about, we should be obliged to go without her, for he said there was probably no more a-cut the ruins, at least Hermann, which we could call. So they were employed to pilot us to this pool, as failing to find it, we would obtain no water nearer to Pueblo Bonito than at the little stream at Hermann, which is a distance of thirty-five miles.

Monday, December 19, 1859.

This morning we loaded the wagons with all the corn they would hold;

but it did not occur to many to dig* down, as our other supplies had to be taken along besides. In addition to this the dingoes put into their innermost search for their homes for the night. We started about ten o'clock in the morning and retraced our steps toward Aba, to a point on the road known as arroyo de la Cienaguita dry bed of a water-course stream. This is nearly two miles below there. Here we left the horse track and took a course across the country in the direction of N. 60° W. After travelling some six miles we struck an Indian trail which leads from Imuris to the country of the Sonoleno Apaches. This we followed in the more general direction to some holes in the rocky bed of another water-course stream called Los Arenitos. There often contain water enough for a small party with animals, but we found them quite dry. One, only, had a small pool of ice, but no water. They are 13 miles 1,000 yards from where we left the road. The country for this distance is quite barren. It has but little grass, but is covered with the tall brushlike cactus, and with scattered clumps of pinon and cedar trees. On our right hand, for the last third of this distance, we have had a mass covered with timber to its crest, which is called La Mesa de los Tarascos. It is improperly laid down upon the maps as a sierra, or mountain range. It runs from west to east, connecting a few miles south of the road ending in a point on the plains about fifteen miles east of Los Arenitos, where we cross over it by ascending gradually through an open pass, which can easily be seen from the place where we left the road below Imuris.

The stone that crops out at Los Arenitos is a reasonably fine sand stone, suitable for grindstones and whetstones. The bed is at the upper end of the ravine where the last pool of water would be found in the wet season.

When we reached this point it was nearly night. A cold freezing wind was blowing, and it was yet many miles to the place where we hoped to find water.

The scouts were sent out on three miles behind; major Gordon started on with the cavalry, having for his guide, he that the post before dark; Lieutenant Temple with twelve men of his division, to walk for the scouts, and then follow with them on the trail. The Indians rode ahead with the lieutenant, that he might track the ponies other might not be. After travelling a little over five miles, the scouts entered the water. It was found in a deep hollow in the open prairie. The pool is not over sixty or one hundred yards in diameter, and might easily be missed when not seen by one acquainted with its locality. The water is fresh and sweet. This pool is nearly a mile from timber. It lies immediately off northeast the mouth of a pass through the bluffs de los Ramos, and is known to the shepherds as la laguna de la fuente, the lake of the fount. There no mule holes in the bed, and, having entered all the horses, turned up into the pass, there we found wood in abundance, and very good protection from the cold wind. We soon had large fires burning, which served as a beacon to the lieutenant, who was behind bringing up the rear. Shortly after dark he arrived. One of the scouts was immediately selected and sent with the watchword to the boys the one following instructions to see to not the water through the ice. By ten o'clock that night our horses were brought out fed, rubbed their supper, and large piles of grass were thrown the whole length of the camp, which is a cheerful and picturesque appearance.

This camp is twenty-five miles and it yards from Fresno.

Tuesday, December 22, 1846.

As we knew it would be quite impossible to march to Fresno without the necessary preparations there and back to the Fresno in one day, it was decided to rest this morning, and to fill the bags and fully rubber

water-tanks with water, and then to march to the ruins in the afternoon; to encamp near them to-night; to employ the forenoon of to-morrow in their examination; and then to return to-morrow evening to this place. In this way our animals would not be without water more than a day and a half. We accordingly broke up our camp about half-past twelve o'clock. After we had filled our bags and tanks at the basin, we ascended a high ridge for a mile or more, when our guide pointed out to us that he said was the round church or cathedral, at Casa Grande. It was in an air line all of thirteen miles distant, and yet we could see it distinctly with the naked eye. We could have seen it easily when five or six miles further off, but there was no obstruction to the view; a proof of the remarkable clearness of the atmosphere in this elevated region. It lies N. 5° E by the compass from Laguna de la Huerta, and served for a landmark towards which to direct our march. Our course was a very direct one; for the country which is an open rolling prairie, offered no impediment to our moving in a right line. The weather started to be very cold in the afternoon; then we began a fierce wind arose from the direction of the mountains in the west, and a cold vapor like a cloud came over the country, enveloping everything in a dense fog, and covering our hats with a hoar frost. It was feared that the fog would change into one of those dreadful winter storms with are sometimes experienced in this country, and which are so fatal to men and animals when exposed to their fury on the open prairie. So the direction of the march was changed, that we might get the shelter of the timber on the slope of the Sierra de los Tanques, which stretched along our right at a distance of not more than three or four miles. This we struck very opportunely, just as night was setting in. We soon had large fires blazing, and all our horses well

blanketed and picketed on the leeward side of them, to get the benefit of the heated air and of the eddy in the wind from the long line of tents. In this way they were kept from suffering, although the night was unusually cold and inclement.

So a ill weather day has passed away, and the ruins are not yet reached. Quivira would seem always to have been a difficult place to arrive at. We find in Castenada's history of the expedition into this country made by Francisco Vasquez de Coronado, in 1540, '41, and '42, that that general was forty-eight days in hunting for it, starting from some point between the Rio Grande and the Gila river. All the way from Albuquerque we have asked the people of the country where the ruins were situated, how they looked, who built them, etc, etc., etc. To all these questions we could seldom get a more definite reply than Quien sabe? It seemed as if the Pueblo Indians, in the Eastern tale at least, are said to guard the depositories of great treasures, were determined to make the existence of such a place as Gran Quivira as much of a problem to us as to the Mexicans themselves. We had seen, before the fog set in, an edifice in the distance, which had seemed to move away as we approached it, like the weird lakes of water in a mirage. But to-morrow, at all events, will decide for us whether that edifice be a Fata Morgana or not.

Wednesday, December 21, 1853.

At daybreak this morning every tree and spire of grass, and even the blankets upon our horses, were covered with ice. The trees seemed as if every twig was made of frosted silver. The wind had come down, and overhead the sky was clear; but a heavy bank of fog extended all along the east, obstructing our view of the Sierra de los Gallinas, which bounds the horizon in the direction. It was here and there that the evaporation was rolled up through as large a veil.

Soon after we left camp we again saw the cathedral of Tell Hariri; but in succeeding one eminence after another as we moved along over a rolling country, the ruins, phantom like, seemed to recede before us the same as yesterday. When we first saw them this morning they appeared to be about a mile and a half distant, when in reality they were more than five miles off. The last three of these five miles' travel was over nothing but a succession of sand hills covered with a tall coarse grass, with two or three herds on each flank, which seemed to be peculiar to this place. The horses sank more than fetlock-deep into the soft yielding sand; while it was with great difficulty that the mules, at a small's pace, drew the waggons along.

At eleven o'clock in the forenoon we came to the last high ridge on the point of which the ruins are situated. This ridge is composed of hard blue compact limestone, which crops out in several places along its slopes. The ascent is quite abrupt on every hand, except towards the east; the ridge is prolonged in that direction for several miles. We all felt rejoiced that finally we had reached a place about which so much had been written, and yet so little had really been known.

Whatever may have been the grandeur and magnificence of that place in a more ideal past, its present appearance and condition are easily described.

We found the ruins of Tell Hariri to consist of the remains of a large church, or cathedral, with a monastery attached to it; a smaller church or chapel; and the ruins of a town extending nine hundred feet in a direction east and west, and three hundred feet north and south. All these buildings had been constructed of the dark blue limestone which was found in the vicinity.

The cathedral, which we had seen from Mount Ab la Fourth, is one hundred and forty feet long outside, with the walls nearly six feet in

hickness. It stands longitudinally n. 10° w., with the great entrance in the eastern
nd. The altar was in the western end. Like the churches at Ani known, it
s constructed in the form of a cross. From the doorway at the foot of the cross
o the transept, it is eighty-four feet seven inches; across the transept it is
enty-one feet six inches; and from thence to the head of the cross it is
enty-two feet seven inches; making the total length, inside, one hundred and
enty-eight feet eight inches. The width of the nave is twenty-seven feet; the
idth, inside of the short arm of the cross, is thirty-six feet. A gallery
tended along the body of the cathedral for the first twenty-four feet. Even
the beams which sustained it, and the remains of two of the pillars that stood
ong under the end of it which was nearest to the altar, are still here; the
ne is in a tolerably good state of preservation--the pillars very much decayed;
y are of pine wood, and are very elaborately carved. There is also what,
hape, might be termed an entablature supporting each side of the gallery, and
ply extended in the main wall of the church; this is twenty-four feet long by,
, eighteen inches or two feet in width; it is carved very beautifully, indeed.
exhibits not only great skill in the use of various kinds of tools, but
uisite taste on the part of the workmen in the construction of the figures.
se beams and entablatures would be as ornament to any edifice even at the
sent day. To have cut one of the beams into three parts, to take back with
The entablatures are so deeply set in the walls that we are unable to
ure a piece of them. The beams are square, and are carved on three sides;
floor of the gallery rested on the fourth side.

The stone of which the cathedral was built was not hewn, nor even
ghly dressed; but the smoothest side of each piece was laid to the surface

ith great care. We saw in one place in all the ruins which was over a foot in
epth. The mortar was made from the ordinary soil found upon the spot; it
eems but a poor cement to resist the action of the elements and the ordinary
rogress of time.

The walls of the cathedral are now about thirty feet in height. It
s estimated, from the great quantity of stones which have fallen down, former
ort of below both within the walls and outside of them, that, originally,
he building was all of fifty feet in height. There is a small room to the right
pon enter the cathedral, and another room, which is very large, and which
ommunicates with the main body of the building by a door at the left of the
hancel. There was also communication between this large room and the cemetery,
ystem of cloisters, which are attached to the cathedral. The chapel is one
undred and thirty feet from the cathedral. This building is one hundred and
fteen feet long, outside, and sixty-two in width; the walls are three feet
ht inches in thickness; it is apparently in a better state of preservation
n the cathedral, but yet none of the former wealth remains in it.

A short distance from the chapel there is an enclosure, which we
ound was the ancient cemetery.

The remains of the town are but heaps of stones, with here and there
e evidences of narrow streets running nearly east and west, and north and
th. Through these stones pieces of bones and sticks of wood are seen to
ject; these indicate, by size and character, that they are of very great
quity; they are bleached white by the weather, and are deeply grooved by the
th of time.

We saw some deep pits, which were circular, and which seemed like
s; we believed them to be the remains of cisterns--they were not deep enough

r walls; some have concluded that they were grinding. Two hundred and ninety
et north of the cathedral there are evident traces of an aqueduct; this, as
ll as the cisterns, was probably made to collect the rain-water which ran
om the different buildings.

Toward the east we saw a well defined road, which kept the ridge for
four hundred yards, and then turned off toward the southeast, where all further
ttiges of it are lost in the sand. There it is the most plainly marked along
e summit of the ridge some large cedar trees are growing directly in the middle
f it; these trees look to be very old indeed.

In every direction about the ruins we found great quantities of broken
tery, many specimens of which we have collected to take to Albuquerque. Some
f it is handsomely marked and well glazed. We also found several stones which
re evidently once used as grinders. These metates are in use to this day, to rub
hich corn upon until it becomes a kind of dough, suitable to be kneaded into
hes called tortillas. We have selected two, which we shall take home with us.
ese prove to us that the ancient inhabitants of Gran Quivira knew the use of
rn as an article of food.

There is no sign that the ground in the vicinity has ever been culti-
ted, and no mark whatever of irrigating ditches. Indeed, an acequia, or open
queduct, could not, it is believed, have brought water to the Gran Quivira,
r the point occupied by the town appears to be considerably higher than the
surrounding country.

We were informed by men at Chilili who had been herding in their
uth, and had herded sheep in this region of country, that there is a fine bold
ring of water at the base of the Sierra de los Pedernos, about fifteen miles
m the ruins, and that they had heard that water once ran in an aqueduct from

that sprint to the Gran Quivira. This could easily have been possible, unless the aqueduct was a closed pipe; because, from appearances, the country intervening between these two points is considerably lower than either of them.

We saw no indications that there had ever been such an aqueduct, nor did we see any sign that wells had been dug in the neighborhood. From every aperture of the country, both within and without the surrounding mud-hills, we could but be lost in conjecture as to the method adopted by the inhabitants to obtain even water to drink, let alone for purposes of irrigation, unless they were supplied by some spring or stream that has long since disappeared. The nearest point where water can always be obtained now, is the spring which the natives spoke of as being at the base of the Sierra de las Gallinas, fifteen miles away. The Jaruma de la Cuarta is 14 miles 775 yards from Gran Quivira, in nearly a direct line; but this is said to become entirely dry in seasons of great drought.

As at the Jaruma, we were surprised at not finding, in the cathedral and chapel, some of the doorways and windows surmounted by an arch. Had they been so, originally, those buildings would be in a better state of preservation. The beams across windows and doors, in giving way to the weight above as they became decayed, made a fair beginning towards letting down the whole superstructure.

Mr. Bowen, in speaking of the ancient ruins of New Mexico, says: "The most remarkable of these are La Gran Quivira. This appears to have been a considerable city, larger and richer by far than the capital of New Mexico has ever been. Many walls, particularly those of churches, still stand erect amid the desolation that surrounds them, as if their massiveness had been a shield against which time dealt his blows in vain. The style of architecture

is altogether superior to any thing at present to be found in the Mexico. But is more extraordinary still is, that there is no water within less than seve ten miles of the ruins; yet we find several stone cisterns, and remains of aqueducts, eight or ten miles in length, leading from the neighboring mountains, from whence water was no doubt conveyed. And as there seem to be no indications whatever of the inhabitants having ever been engaged in agricultural pursuits, what could have induced the rearing of a city in such an arid sandless plain as this, except the proximity of some valuable mine, it is difficult to imagine. From the peculiar character of the place, and the remains of cisterns still existing, the object of pursuit, in this case, would seem to have been a placer—a name applied to mines of gold-dust intermingled with the earth. Other mines have, no doubt, been worked in the adjacent mountains, as many spacious pits are found, such as are usually dug in pursuit of ores of silver; and it is stated that in several places heaps of scoria are found.

"By some persons these ruins have been supposed to be the remains of an ancient pueblo, or aboriginal city. This is not probable; for, though the relics of aboriginal temples might possibly be mistaken for those of Catholic churches, yet it is not presumed that the Spanish cast of arms would be found sculptured and painted upon their facades, as is the case in more than one instance. The most rational accounts represent this to have been a wealthy Spanish city, before the general massacre of 1680, in which calamity the inhabitants perished—all except one, as the story runs,—and that their immense treasures were buried in the ruins. Some credulous adventurers have lately visited the spot in search of these long-lost coffers, but as yet (1845) none have been found."

There is no indication that the countenance of Spain was ever sculptured

or painted on any facade about the ruins; and the facts, as regards the style of architecture and the remains of an aqueduct, do not, as is shown by this journal, agree with his statement. Mr. Bandelier must have described the appearance of this place from what he heard about it; for on all those subjects of which he wrote from personal observation he is most excellent authority.

Pedro de Castaneda accompanied Francisco Vasquez de Coronado in his great expedition to the north in search of gold. He wrote a history of the campaign. General Vasquez de Coronado arrived in a country which was called Cuivira, in the month of June, 1540. If the present ruins of Gran Quivira are in a region identical with the Cuivira then visited, it may be of interest to note that Castaneda says of it and of its inhabitants:

"Up to that point the whole country is only one plain; at Cuivira, mountains begin to be perceived. From what was seen, it appears to be a well peopled country. The plants and fruits greatly resemble those of Spain: plums, grapes, nuts, mulberries, rye, grass, oats, pennyroyal, origanum, and flax, which the natives do not cultivate, because they do not understand the use of it. Their manners and customs are the same as those of the Teyas; and the villages resemble those of New Spain. The houses are round, and have no walls; the stories are like lofts; the roofs are of straw. The inhabitants sleep under the roofs; and there they keep what they possess."

The manners and customs of the Teyas, to which he likens those of the people of Quivira, are described as follows:

"These natives are called Querechos and Teyas. They live under tents of buffalo skins tanned, and subsist by the chase of these animals. These nomadic Indians are braver than those of the villages; they are taller, and are inured to war. They have great troops of dogs, which carry their baggage;

hey secure it on the backs of these animals by means of a girth and a little
ach-saddle. When the load becomes deranged, the dogs begin to bark to warn their
aster to adjust it. These Indians live on raw meat, and drink blood; but they
o not eat human flesh. Far from being evil, they are very gentle, and very
aithful in their friendships. They can make themselves very well understood
y signs. They cut meat in very thin slices, and dry it in the sun; they reduce
t afterwards to a powder, to preserve it. A single handful thrown into a pot
uffices for a meal, for it swells greatly. They prepare it with the fat which
hey preserve when they kill a buffalo. They carry around the neck a great
ntestine filled with blood, which they drink when thirsty. If they open a
uffalo, they squeeze the reticulated grass which is found in the stomach, and
rink the juice which runs out; they say that this is the whole substance of the
ally. They open a buffalo at the back, and divide it at the joints, by means
f a piece of pebble attached to the end of a stick, with as much facility as
f they used a knife of the best steel."

The present ruins are not the remains of the round houses with roofs
f straw, which Castaneda describes as the dwellings of the inhabitants of
ivira, three hundred and twelve years ago; and if they had had in those days
nstruments to shape and carve those beautiful beams and pillars, and
abletures, they would hardly have used pebbles at the ends of sticks in
tting up the buffaloes which they had killed. Besides, the wastes we have
und are almost positive proof that the people who once resided here ate no
ad tortillas made of corn; while, from Castaneda's account, one is obliged to
llow that the inhabitants of the country which he calls Teguayo lived entirely
on the flesh of the buffalo, as the Comanches do at the present day.

Castaneda says likewise that: "The Indians of the country had neither

old or silver, and were not acquainted with the precious metals. The Aztec wore on his breast a plate of copper, which he held in the greatest esteem."

They have supposed that the ancient Aztecs built the edifices at Casa Grande, Abo and Quarra, during their migration from Aztlan toward Anahuac; and that the ruins now found in the Navajo country, and the Casa Grandes which are still to be seen along the Gila river, were built by the same people and at about the same period of time. Captain Johnson, of the first dragoons, visited the ruins of the Gila river in November, 1846; from his description of one of the Casa Grande, the largest and best of any he saw, we can discover no point of resemblance between it and those now before us. Captain Johnson says: "After marching six miles, still passing plains which had once been occupied, we saw on our left the Casa de Montezuma. I rode to it, and found the remains of the walls of four buildings, and the piles of earth showing where many others had been. One of the buildings is still quite complete, as a ruin. The others had all crumbled but a few pieces of low, broken wall. The large Casa was fifty feet by forty, and had been four stories high; but the floors and roof had long since been burnt out. The charred ends of the cedar joists were still in the wall. I examined them, and found that they had not been cut with a steel instrument. The joists were round sticks. There were four entrances, north, south, east, and west; the doors are about four feet by two. The rooms had the same arrangement on each story. There was no sign of a fireplace in the building. The lower story was filled with rubbish; and above, it was open to the sky. The walls were four feet thick at the bottom, and had a curved inclination inwards at the top. The house was built of a sort of white earth with pebbles, probably containing lime, which abounded on the ground adjacent; and the surface still remained firm, although it was evident they (the walls) had been exposed to

great heat from the fire. Some of the rooms did not open to all the rest, but had a hole a foot in diameter to look through. In other places were smaller holes." Clavigero, the historian, believes that this great movement of the Aztecs from the north towards the south commenced about the year of our lord 1160, and that Casas Grandes were built by them at various halts which they made in their circuitous journey towards the valley of Mexico. It has been shown that in 1540 there were no buildings of the size and character of the Casas Grandes, or such as are found here now, in all the country called Suivira, which Castaneda visited and described. So one must conclude that, so far as the Aztecs are concerned, whatever they may have had to do with the building of the edifices either in the Moqui country, or on the Gila, or those found 200 miles northwest of Chihuahua, they never planned or constructed those at Casas Grandes.

History represents that Vasquez de Coronado, finding no gold during his great expedition, returned to Mexico, where he fell into disgrace and died in obscurity.

The Spaniards did not return to colonize the province of New Mexico until the year 1581; and the country could not be considered as conquered until 1598. For eighty-five years after this the colony seems to have prospered and to have grown in power. Towns and villages were built, and valuable mines of gold and silver were found and worked with success. The Catholic clergy were aided in their efforts to convert the Indians to christianity by the government, at whose expense large churches were erected in different parts of the province of New Mexico, corresponding with the missions, which were built for the same purpose and at about the same period in the other provinces of Texas and California. It was during this time, doubtless, that

he large edifices of the, there, and from which were erected. It is more han probable that valuable mines of the precious metals were found in their icinity, and worked under the direction of the Spaniards by the Indians who ad been subjugated; for there is every reason to believe that the mountains ast of the Rio Grande are at this day rich in gold and silver.

It appears that during these eighty-five years the Spaniards treated he Indians with the most cruel oppression, until finally the latter revolted gainst them. The night of the 10th of August, 1680, was the time set throughut all New Mexico, when the Indians should rise and make an indiscriminate assacre of all the Spaniards in the country. This plot was made known to Don ntonio de Otermin, then the governor and military commandant of the province, y two Indian chiefs. Every effort was made for defence and to avert the oming storm, but without success. The Indians rose as agreed upon; after arious conflicts, they destroyed great numbers of the inhabitants; and, nally, by the latter end of September of that year, succeeded in driving ll the rest, with Governor Otermin included, to El Paso del Norte, entirely eyond the confines of the territory.

We have been informed that there is now a tradition amongst the Indians, hat as soon as their forefathers had become successful in expelling the Spaniards, hey filled up and concealed all traces of the mines where they had toiled and uffered for so many years; declaring the penalty to be torture and death to any ne who should again make known their locality.

Old Mr. Chapin, who overtook us soon after our arrival at Doña Ana, informed Major Carleton that he had been told, when in his youth, by ome old people, that a tribe of Indians once lived here called the Piros (' Salvias; that the Spanish priests came and lived amongst them, in peace

d security, for twenty years; that during this period three large
ere erected; and that at the time of the great massacre there were seventy
riests and monks residing here—all of whom were butchered excepting two, who
ontrived to make their escape; that, previous to their massacre, the priests
d had intimation of the approaching danger, and had not only buried the
assive treasures which had been collected, but had concealed likewise the bells
f the churches; that many years afterwards the people of Isleta died off until
t few remained; that one of these, a descendant of the chief, knew where the
reasures were buried; that the remnant of the tribe afterwards migrated and
oined other Pueblos below El Paso; and that many years ago an old man, one of
he last of the tribe, had told in what direction from the church these great
reasures had been concealed. So far as the building of the churches and the
assacre of the monks and priests are concerned in this account, as well as the
inal desertion and removal of the people who once lived here, there is no doubt
at the story told by Mr. Chavis is, in the main, correct. The account of the
isposition of the bells and the treasure is said to have been written down as
eard from the lips of the last ancient of Isleta, who, at the time he made
is statement, was living many miles below Isleta, on the Mexican side of the river.
opy of this paper has been secured, and is here inserted in the original
anuscript, for the benefit of those who may take an interest in such matters.

"En el Inventario de la Parroquia consta en el centro del costado
erecho cuenta la figura numero uno esta una entrada cuadrada cuyos dos
ingulos tocando la linea de la abertura que dejan las dos esquinas se hace
n oriente para el callejon que deja la celesia vieja y al pueblo una linea
e distancia de trece cientos varas mas o menos que es hay otra que forma linea
e las esquinas debajo de dicha linea hai un estanco de diez a cinco varas

tesoro de piatras el cual tiene el gran tesoro.

"Escrivado por Carlos quinto de la Gran Quivira."

** (Footnote: "In the cemetery of the great parish church, in the centre of the right side, according to figure number one, there is a pit, and by digging will be found two bells. By taking the line of the opening left by the two bells, there will be seen to the east, since the lane left by the old church and the town, a hill, at the distance of three hundred yards, more or less, which forms precisely a line with the bells. At the foot of said hill is a cellar of ten yards or more, covered with stones, of (or) containing the great treasure. "mentioned by Charles Fifth of Gran Quivira.")

The grammar of this document is preserved, as in the original.

ere can be no doubt but the belief that a large amount of gold and silver s been buried here, has for a great number of years been seriously entertained. find in the cathedral and in the chapel, in every room in the monastery, in ery mound of stones in the neighborhood, and in every direction about the ins, large holes dug, in many places to the depth of ten feet, by those who have en from time to time to seek for these hidden treasures. Some of these holes ok as if they were made more than a century ago, while others appear to be ite recent. Even the ashes of the dead have not been left undisturbed during ese explorations. Near the east end of the chapel we saw where the people d had been digging had thrown up a great many human bones, which now lie ttered about. From these we have selected six skulls to send to some one o is skilled in the science of craniology, that he may determine, if possible, hat race of people they once belonged. These skulls are thought to be nearly large.

The ruins of Gran Quivira have hitherto occupied the same position th respect to the boundless prairies which the fabulous island of Atlantis

id to the ocean in days of antiquity. No one seemed to know exactly where this city was situated. But the uncertainty of its locality seemed to make no difference in regard to the interest that was felt concerning it; for people would believe in its existence, and receive great pleasure in listening to traditions about its marvellous beauty and magnificence, even when to a reasonable mind those traditions and accounts can appear to probability.

Men of genius and distinction have taken great pains in following up these in the labyrinth of reports concerning it, whether oral or written, and in their glowing descriptions it has appeared almost like a city of enchantment. In them it had paved streets, and fluted columns, and ornate friezes, and sculptured facades; it had the varieties of agoraeute and frontons; it had many colonnades, and even barbaric statuary; it had the ornated arch, the shouldering buttress, the guided gargoyle, and everything in outline and in detail that could heighten skill, and taste, and opulence. It was a city, they said, whose inhabitants departed from it so long back in the gloom and mists of the past as to leave in utter obscurity all other records concerning them.

The sphinx, they said, about whose knees the souls from the Lybian desert had drifted for unknown centuries, was no more of an enigma than this one. Here were palaces and temples, and deserted courts, and long-echoing corridors, and green-grown streets, and reigning over all a silence as profound as almost to be heard.

Historical societies had taken up these descriptions, and filed them away among their transactions as documents of deep interest. Venerable and learned chronologists traveled in dusty manuscripts and black-lettered volumes of antiquity for some authentic account of that race of men who reared and then abandoned such a city. But to this present their researches have proved

traditions, and the story that each is still recorded in an unsealed book.

Our business is not that which will permit us to clothe with imaginary grandeur these vestiges of a people whose name has been erased from the book of nations, nor that which will allow us time to indulge in abstruse speculations as to their race or their language. Those things belong to the poet and philosopher. With all those pleasant reveries and romantic fancies which these ruins may have on a desert are so wonderfully calculated to inspire us can have nothing to do. We came here to note realities; and now the facts we have seen, the theories we have read which were of value, the traditions we have heard deserving of attention, and the conclusions to which we have come concerning this interesting place, are all written down. All else are the things we can admit of doubt, and is obscured by no dark a cloud of uncertainty as to leave much ground for new theories, and for, perhaps, infinitely more valuable conclusions.

We found that the Comanches Apaches, with whom we had some business of interest, had all gone for beyond the south. Our guide, who was a captive amongst them for eight months, gave us some information as to their strength in warriors, which is worthy of record. He says they live in small bands, or families, in order to distribute themselves over a greater extent of country for purposes of hunting. When they are engaged in war, or upon any other enterprise of importance, these bands become united. When separated, they are each controlled by a sub-chief; when acting in concert, they choose a head-man to direct affairs for the time being. The following list shows the name of each of these sub-chiefs and the strength of his band of fighting men:

Santos has forty men;

Pamacito has nine men;

Tarranco has nineteen men;

Negrito has twenty men;

Jose Lango has fifteen men;

La Plaza has thirteen men;

Ambrosio has nineteen men.

The chiefs who live in the Pegueneto mountains, whose names are unknown, have fifty men.

Add to these the ten sub-chiefs, and we have in this tribe two hundred and eight men capable of bearing arms.

They are represented as having very good rifles, and as being most excellent shots. Living in the neighborhood of the great thoroughfare that leads from Texas to California, and having mountain fastnesses in which to hide when pursued, they are able, and very willing, to do a great deal of mischief.

Pena Gaza Sivira, the northern point of the Sierra Nieves bears by the compass N. 30° E., and is distant about fifty miles.

The highest point of the Sierra de las Salinas bears E. 5° N., and is distant about fifteen miles.

The peaks known as the Potillos bear N. 30° W., and are distant about fifty-five miles.

We left the ruins about three o'clock in the afternoon, and returned our steps to the Laguna de la Puerta, where we arrived an hour after dark.

Thursday, November 11, 1850.

To-day we returned to Carrizo, over the same track we had made to the lagoon. Here we encountered a sand-storm. This term is so singular that

hardly a cloud passes the mountains that does not shower upon it either rain, snow, or hail. From what we have observed during our second visit to this place, this Botany Bay of New Mexico, we have concluded that our former estimate of the character of the inhabitants was premature and ill-judged; we now believe that there is not one single redeeming trait of disposition or habits to be found within its borders.

Friday, December 23, 1853.

Our course to-day was about N. 10° W., and lay along the eastern slopes of the Sierra de la Barranca. We found a snow-storm for nearly the whole forenoon, and were therefore unable to observe much about the features of the country. Six miles 720 yards from Navajoa we passed a small mountain stream running towards the east—a mere brook, that is soon lost in the ground. On this there is a little village called Barranca. Two miles, 1,101 yards further north we passed another similar brook, and another small town called Tejique. From this last place, over a rolling, broken, and well timbered country, we marched to a small hamlet called Chihili. This town, like Barranca and Tejique, is situated upon a mere rivulet, running from the mountains to the open plains towards the east. Here we encamped in the snow, and suffered much during the whole night from a cold wind from the north.

Saturday, December 24, 1853.

This morning, before we left camp, an old Mexican brought us some ore, which he said is to be found in great abundance near the Potilla Peaks, but that it is now covered so deeply in the snow as to be difficult to be procured. We believe the specimen he gave us contains silver. When the snow has melted, it will be worth the trouble, perhaps, to explore there

mountains thoroughly, with a view to the discovery of precious metals.

After travelling north for about two miles this morning, we turned off toward the west, by a road that leads to Albuquerque by the Canon del Inferno. As we ascended the eastern slope of the mountain, we passed through extensive groves of large pine-trees, suitable for boards and other building purposes. The snow was a foot in depth, and the air dry and cold, as in mid-winter in the extreme north. The Canon del Inferno is 10 miles 800 yards in length. It is very circuitous. The mountains rise abruptly thousands of feet above it on either hand. This makes it a pass of great magnificence, as well as of a wild and picturesque beauty. Half-way down through it we came to a fine spring of water. The rocks are the same stratified, fossiliferous limestone, which we saw at Los Vueltas do Rio. From the mouth of the Canon del Inferno to Albuquerque, the road descends through an open prairie, entirely destitute of water for the whole distance, which is 20 miles 600 yards.

We arrived at Albuquerque at 2 o'clock in the evening, having traveled to-day 34 miles 317 yards.

Reprint Box
Missions Pimeria Alta

NOTES ON MISSION CHURCHES IN THE ALTAR VALLEY,

May, 1946

S.P. Brewer

References

"Architecture of the Sonora Missions", Sonora Expedition, Oct. 12-29, 1935. Scofield DeLong and Leffler B. Miller. National Park Service, San Francisco, California, April-1936 (text, photographs, plans, and drawings)

Photographs in photo file at Tumacacori National Monument (prints made from numbered negatives which are on file in the Region Three Office)

References

"Architecture of the Sonora Missions", Sonora Expedition, Oct. 12-29, 1936. Scofield Delong and Lyffler K. Miller. National Park Service, San Francisco, California, April- 1936 (text, photographs, plans, and drawings)

Photographs in photo file at Tumacacori National Monument (prints made from numbered negatives which are on file in the Region Three Office)

NOTES ON MISSIONS OF THE ALTAR VALLEY AS OF MAY, 1946

It was tantalizing to be so near, and yet so far, from Tumacacori's sister missions across the border--mission sites established by Father Kino, and churches built during the period of Tumacacori's construction--country and buildings that couldn't fail to give us a better insight into the work of the early missionaries, and that probably could help us answer specific questions about Tumacacori itself. The distance between Tumacacori and the missions of the Altar Valley in Mexico is less than 150 miles--but poor roads, and the general opinion as to the difficulties of travel off the usual tourist routes in Sonora kept me from going down alone in my passenger car.

In May of this year, thanks to friends, I got to see Caborca, Pitiquito, Oquitoa, and Tubutama; Barbara Hutchins drove her Army command car (which has the clearance and rugged construction that make travel over trail-roads a certainty instead of a conjecture), and Doris Seibold served as interpreter and public relations expert.

We left Tumacacori about 2 pm on May 26, and returned about 10 pm on May 29; friends facilitated our crossing at Mesquite, Sonora; a letter from Fred Valenzuela at Sasabe to Senor Francisco Araiza M. of Altar started a chain of letters and official courtesies that enabled us to see as much as we did in the short time we had.

We reached Altar at noon on the 27th, and stopped at Pitiquito on our way to Caborca that evening. The Presidente of Caborca, Senor Eleazar Ortiz O., has written notes on both Tubutama and Caborca missions and spent several hours with us at the old mission here. Caborca is a town of about 6,000 now, and looks forward to an increase of population when the railroad between Mexicali and Benjamin Hill is completed; the valley between Altar and Caborca is irrigated, there is plenty of water, cattle were being fattened in some fields, and a good deal of wheat and cotton are grown here (every town has a flour mill). Senor Ortiz believes they have been able to divert the flood water of the Asuncion River (below the juncture of the Altar and Magdalena Rivers) from the old mission, but hopes for heavy machinery to throw up an adequate revetment. Protection for the mission from the river, and stabilization of undermined sections of the church are badly needed; protection from vandalism will be increasingly necessary if the rail road is completed and brings more tourists and sightseers.

We left Caborca the afternoon of the 28th, and reached Tubutama that evening. Everyone in this small town seems interested in and

NOTES ON MISSIONS OF THE ALTAR VALLEY — 25 MAY, 1948

It was tantalizing to be so near, and yet so far, from Tumacacori's sister missions across the border--mission sites established by Father Kino, and churches built during the period of Tumacacori's construction--country and buildings that couldn't fail to give us a better insight into the work of the early missionaries, and that probably could help us answer specific questions about Tumacacori itself. The distance between Tumacacori and the missions of the Altar Valley in Mexico is less than 150 miles--but poor roads, and the general opinion as to the difficulties of travel off the usual tourist routes in Sonora kept me from going down alone in my passenger car.

In May of this year, thanks to friends, I got to see Caborca, Pitiquito, Oquitoa, and Tubutama; Barbara Hutchins drove her dusty command car (which has the clearance and rugged construction that make travel over trail-roads a certainty instead of a conjecture), and Doris Seibold served as interpreter and public relations expert.

We left Tumacacori about 2 pm on May 26, and returned about 10 pm on May 29; friends facilitated our crossing at Nogales, Sonora; a letter from Fred Valenzuela at Ocuabe to Senor Francisco Uriza M. of Altar started a chain of letters and official courtesies that enabled us to see as much as we did in the short time we had.

We reached Altar at noon on the 27th, and stopped at Pitiquito on our way to Caborca that evening. The Presidente of Caborca, Senor Eleazar Ortiz G., has written notes on both Tubutama and Caborca missions and spent several hours with us at the old mission here. Caborca is a town of about 6,000 now, and looks forward to an increase of population when the railroad between Nogales and Benjamin Hill is completed; the valley between Altar and Caborca is irrigated, there is plenty of water, cattle were being fattened in some fields, and a good deal of wheat and cotton are grown here (every town has a flour mill). Senor Ortiz believes they have been able to divert the flood water of the Asuncion River (below the juncture of the Altar and Magdalena Rivers) from the old mission, but hopes for heavy machinery to throw up adequate revetment. Protection for the mission from the river, and stabilization of undermined sections of the church itself needed; protection from vandalism will be increasingly necessary if the railroad is completed and brings more tourists and sightseers.

We left Caborca the afternoon of the 28th, and reached Tumacacori that evening. Everyone in this small town seems interested in old

proud of their mission church. There being no hotel here we stayed with the family of Maria Teresa Martinez Velez; Luis Alfonso Quiroz, el Presidente; Ramon F. Vasquez, ex-professor and present storekeeper; Luz, Laura, and Betina Martinez, all escorted us through the church and furnished a symposium of local knowledge of the building. We liked their philosophy on some of the contradictions in mission history--they mentioned that Father Saeta had been killed at Tubutama--when I showed them where Bolton's quoting of Kino's records located Saeta's martyrdom at Caborca, they said "at Caborca people say it happened there, at Tubutama we say it happened here--it depends on what village you're in".

We left Tubutama about 11 am the 29th; saw the bells and ruins of the old Atil church from the road but didn't stop because of lack of time; observed that the remaining dobe walls of the ruined Santa Teresa didn't look notably different from the photographs made in 1935; stopped and visited the church and remarkable cemetery at Oquitoa; crossed the border before dark; and were at Tumacacori that night.

All this part of Sonora is suffering from the drought we're experiencing in southern Arizona; the water in irrigation canals near the river points up the wisdom of early travelers in following valleys when possible. It would not have been easy for the padre missionaries, on foot or horseback, to cross the low passes and wide basins from one stream to another--but if the people they found along the way were as hospitable and helpful then as they are now, their travels must have been considerably eased.

. . . . . .

The following notes on the missions visited are based on the report of the 1935 National Park Service expedition ("Architecture of the Sonora Missions", DeLong and Miller); having no training in architecture, the best I could do was to note any change in condition since 1935, and try to describe details in which I was especially interested. Thirty-six exposures were made on Kodachrome, which will (if good) furnish a better record than my notes can give.

Sallie Pierce Brewer.

We left Tubutama about 11 am the 29th; saw the bells and ruins of the old visit church from the road but didn't stop because of lack of time; observed that the remaining adobe walls of the ruined Santa Teresa didn't look notably different from the photographs made in 1935; stopped and visited the church and remarkable cemetery at Covitos; crossed the border before dark; and were at Tumacacori that night.

All this part of Sonora is suffering from the drought we're experiencing in southern Arizona; the water in irrigation canals near the river points up the wisdom of early travelers in following valleys when possible. It would not have been easy for the padre missionaries, on foot or horseback, to cross the low passes and wide basins from one stream to another--but if the people they found along the way were as hospitable and helpful then as they are now, their travels must have been considerably eased.

. . . . . .

The following notes on the missions visited are based on the report of the 1935 National Park Service expedition ("Architecture of the Sonora Missions", Belding and Miller); having no training in architecture, the best I could do was to note any change in condition since 1935, and try to describe details in which I was especially interested. Thirty-six exposures were made on Kodachrome, which will (if good) furnish a better record than my notes can give.

Hollis Pierce Brewer.

MILEAGE

Tumacacori	0
Sasabe	57
Los Molinos	90
Altar	120
Altar	0
Pitiquito	14
Caborca (mission)	22
Altar	0
Oquitoa	6
Atil	19
Santa Teresa	24
Tubutama	28

Altar

Tumacacori	0
Bosque	57
Los Adaimos	90
Altar	120

Altar	0
Pitiquito	14
Caborca (mission)	22

Altar	0
Quitovac	6
[illegible]	19
Santa Teresa	24
Tubutama	28

NUESTRA SEÑORA DE LA CONCEPCION DE CABORCA

Condition of church: Approximately the same as reported in 1935, except for the cloister arcade where only one complete arch and part of another now stand, the northernmost arches having fallen since 1934 (see negative no. 2268, taken by Bob Rose, December, 1934).

Nothing remains of the rooms behind the arcade.

Part of the high dome over the sanctuary stands.*

There are evidences of vandalism; the Presidente told us of men digging in the north transept, and leaving for the United States at night by plane; many names are scratched on the building, many of them American--in the south bell tower was an American name with the date 1854.

Foundations: Angular stone (looks quarried) in good mortar; two were measured as they stood exposed by river-cutting--they were 3½ feet wide, and 9 feet and 10 feet deep. Foundations of rooms at the rear of the church, undercut by floods, have slid down the river bank; they form an interrupted but very sturdy revetment.

Floors: As noted in 1935; floor of south bell tower, upper story, shows traces of smooth red plaster, like that found on altar bench at Tumacacori

Walls: Observed only one complete cross section, the east sanctuary wall cross-sectioned by collapse of the rest of the sanctuary; here the wall was approximately 3½ feet wide; the facing was brick; the fill was rock and mortar, with a horizontal row of brick tieing to the facing about every foot of its elevation.

The baptistry wall, west, measured 5'8" deep.

Ceilings: Groin vault ceiling in arcade, very flat; the plaster has fallen and exposed the small bricks (about 6" x 1" on exposed face--these small bricks were seen wherever I observed arch and dome construction in the Altar Valley missions) laid in arcs beginning at the room corners and meeting near the ceiling center.

The dome over the upper storey of the south bell tower rests directly on the walls--no pendentive--and from the inside has very little rise.

The ceiling of the stairways (narrow, low openings in the walls of the towers) are stepped arches, where three courses of brick were successively projected over the lower course until they met at the top.

Exterior: Plastered; plaster in very good condition. Plaster statue of Santa Candelaria attached to upper facade.

Condition of church: Approximately the same as reported in 1873, except for the cloister arcade where only one complete arch and part of another now stand, the northernmost arches having fallen since 1934 (see negative no. 1368, taken by Bob Rose, December, 1934).

Nothing remains of the rooms behind the arcade.

Part of the high dome over the sanctuary stands."

There are evidences of vandalism; the President told us of men digging in the north transept, and leaving for the United States at night by plane; many names are scratched on the building, many of them American--in the south bell tower was an American name with the date 1834.

Foundations: Irregular stone (looks quarried) in good mortar; two were measured as they stood exposed by river-cutting--they were 3½ feet wide, and 3 feet and 10 feet deep. Foundations of rooms at the rear of the church, undercut by floods, have slid down the river bank; they form an interrupted but very sturdy revetment.

Floors: As noted in 1933; floor of south bell tower, upper story, shows traces of smooth red plaster, like that found on altar bench at Tumacacori

Walls: Observed only one complete cross section, the east sanctuary wall cross-sectioned by collapse of the rest of the sanctuary; here the wall was approximately 3½ feet wide; the facing was brick; the fill was rock and mortar, with a horizontal row of brick tieing to the facing about every foot of its elevation.

The baptistry wall, west, measured 5'8" deep.

Ceilings: Groin vault ceiling in arcade, very flat; the plaster has fallen and exposed the small bricks (about 6" x 1" on exposed face--these small bricks were seen wherever I observed arch and dome construction in the Alter Valley missions) laid in area beginning at the room corners and meeting near the ceiling center.

The dome over the upper storey of the south bell tower rests directly on the walls--no pendentives--and from the inside has very little rise.

The ceiling of the stairways (narrow, low openings in the walls of the towers) are stepped arches, where three courses of brick were successively projected over the lower course until they met at the top.

Exterior: Plastered; plaster in very good condition. Plaster statue of Santa Gundelaria attached to upper facade.

CABORCA (continued)

Interior: Whitewash is peeling in north transept, revealing patches of lovely colors (rose, sage green, olive green, brilliant blue, rust, and red). This transept offers an unusual opportunity of seeing evidences of two periods of mission construction and decoration. There are altars against the north and east walls; the wall behind the altars is ornate with plaster relief decoration--the later altars were rectangular and the plaster work conformed with the decorated wall above. The newer box-like base of the east altar has been dug into, exposing an older triangular altar base, painted in red and black; a hole in the newer altar on the north shows a portion of a similar triangular base here. When the newer work was done the Presidente didn't know--but it was evidently during a time when much time and effort was being spent on the church, judging from the ornate plaster work in the newer altars.

The nave of the church forms the chapel now; a new adobe wall, at the east where the collapse of the sanctuary exposed that end of the building, forms the back wall of the present church. We were told that services are never held here except during Holy Week; there are benches, a rug on the floor near the altar, artificial flowers, and a cloth on the altar. There are two stoups, set in the west walls on each side of the door, with skull and crossbones in plaster relief above each stoup.

In the baptistry is a triangular base for a small altar, evidently the same type as the older altar bases in the north transept. Here are also several buckets of lime--and a wooden catafalque.

Bells: In the north tower; one had no legible inscription; one carried the date of 1898; one was insdribed "Ano de 1816 PURISSIMA CONCEPCION DE MARIA". The rope from this last bell had worn a notch 4 inches deep in the sill brick of the bell arch.

* Receipt of kodachromes taken on trip will show extent of collapse of dome since 1935 pictures.

6-20-41: Pictures show SE section of octagonal drum (1 side + parts of 2 others) and part of dome above this section fallen since 1935

Interior: Whitewash is peeling in north transept, revealing patches of lovely colors (rose, sage green, olive green, brilliant blue, rust, and red). This transept offers an unusual opportunity of seeing evidence of two periods of mission construction and decoration. There are altars against the north and east walls; the wall behind the altars is ornate with plaster relief decoration--the later altars were rectangular and the plaster work conformed with the decorated wall above. The newer box-like base of the east altar has been dug into, exposing an older triangular altar base, painted in red and black; a hole in the newer altar on the north shows a portion of a similar triangular base here. When the newer work was done the Presidente didn't knowbut it was evidently during a time when much time and effort was being spent on the church, judging from the ornate plaster work in the newer altars.

The nave of the church forms the chapel now, a new adobe wall, at the east where the collapse of the sanctuary exposed that end of the building,forms the back wall of the present church. We were told that services are never held here except during Holy Week; there are benches, a rug on the floor near the altar, artificial flowers, and a cloth on the altar. There are two stoups, set in the west walls on each side of the door, with skull and crossbones in plaster relief above each stoup.

In the baptistry is a triangular base for a small altar, evidently the same type as the older altar bases in the north transept. There are also several buckets of lime--and a wooden cat(figure.

Bells: In the north tower; one bad no legible inscription; one carried the date of 1898; one was inscribed "Mo de 1810 Fundida Cuidado [illegible]". The rope from this last bell had worn a notch 4 inches deep in the sill brick of the bell arch.

* Receipt of Kodachromes taken on trip will show extent of collapse of done since 1920 pictures.

SAN DIEGO del PITIQUITO

Condition of church: Good. It is now an active church, visited twice a month by the priest from Altar. The women were cleaning the church the afternoon of our visit, preparing for the arrival of the priest that evening. The whole building is well cared for.

Walls: Burned brick and mortar; the only stones I noticed in the walls had the appearance of patching work--irregular in occurrence and near the base of the walls.

Ceilings: Great variety--very interesting. Nave and sacristy ceilings are barrel vaults; over the crossing is a dome, joined on three sides by the half-domes of the transepts and sanctuary; the arcade ceiling is a series of domes; the room to the right of the entrance (now used as the priest's bedroom on his visits) has a dome ceiling; the stairwell over the baptistry is covered by a very flat dome. I was especially interested in this flat dome; the bricks were the very small ones seen in dome construction in the Altar Valley; they seemed to be laid just off the horizontal; the base was approximately 12 feet square, with suggestions of pendentives (not over 12 inches wide at the top) in the corners; the exterior was built up to a low dome, but the interior rise from base to center couldn't have been over 12 inches (this dome does not show in the section drawn for the 1935 report).

One of the arcade domes had lost the interior plaster and showed a "plate" in the center; showing beneath the plaster of the crossing dome was a similar round section in the center of the dome.

Exterior: Plastered; plaster worn and exposing bricks on more exposed walls.

The entrance has been whitewashed and shows no color now.

There are deep grooves worn along the northwest corner of the nave, rubbed by bell ropes pulled from the stairs outside the entrance.

Interior: Whitewashed. Quite completely furnished, chiefly with post-mission period statues, etc. The stoup is plastered, about 18 inches inside diameter, set on a square masonry base in right center of floor near entrance (see negative # 2242--the copper basin shown is not now part of the stoup). The confessional shelter and pulpit are interesting (see negative # 2242)--they are columned projections into the nave just west of the transepts. On the left a dome covers a wooden confessional; on the right a platform at the level of the dome forms the pulpit. The pulpit is entered by a stairway from the south transept; the wall entrance measured 14 inches wide at stair level.

SAN DIEGO del PITIQUITO

Condition of church: Good. It is now an active church, visited twice a month by the priest from Altar. The women were cleaning the church the afternoon of our visit, preparing for the arrival of the priest that evening. The whole building is well cared for.

Walls: Burned brick and mortar; the only stones I noticed in the walls had the appearance of patching work--irregular in occurrence and near the base of the walls.

Ceilings: Great variety--very interesting. Have and scarcely ceilings are barrell vaults; over the crossing is a dome, joined on three sides by the half-domes of the transepts and sanctuary; the arcade ceiling is a series of domes; the room to the right of the entrance (now used as the priest's bedroom on his visits) has a dome ceiling; the stairwell over the baptistry is covered by a very flat dome. I was especially interested in this flat dome; the bricks were the very small ones seen in dome construction in the Altar Valley; they seemed to be laid just off the horizontal; the base was approximately 15 feet square, with suggestions of pendentives (not over 18 inches wide at the top) in the corners; the exterior was built up to a low dome, but the interior rise from base to center couldn't have been over 12 inches (this dome does not show in the section drawn for the 1935 report).

One of the arcade domes had lost the interior plaster and showed a "plate" in the center; showing beneath the plaster of the crossing dome was a similar round section in the center of the dome.

Exterior: Plastered; plaster worn and exposing bricks on more exposed walls.

The entrance has been whitewashed and shows no color now.

There are deep grooves worn along the northwest corner of the nave, rubbed by bell ropes pulled from the stairs outside the entrance.

Interior: Whitewashed. Quite completely furnished, chiefly with post-mission period statues, etc. The stoup is plastered, about 18 inches inside diameter, set on a square masonry base in right center of floor near entrance (see negative # 2242--the copper basin shown is not now part of the stoup). The confessional shelter and pulpit are interesting (see negative # 2242)--they are columned projections into the nave just west of the transepts. On the left a dome covers a wooden confessional; on the right a platform at the level of the dome forms the pulpit. The pulpit is entered by a stairway from the south transept; the wall entrance measured 14 inches wide at stair level.

PITIQUITO (continued)

A good example of old copper baptismal font, with cover, was stored on the floor of the sacristy. New statues (the pride of the women who were in the church) were on tables in the small room at the west end of the arcade.

Stairway to roof: The stairs begin in the baptistry and lead to the choir loft and the roof just behind the bell arches; each flight is supported on an incomplete arch built against the walls of the stair well, unsupported from below.

Bells: There are two hanging in the two arches built above roof level; they are dated 1897

A good example of old copper baptismal font, with cover, was stored on the floor of the sacristy. New statues (the pride of the women who were in the church) were on tables in the small room at the west end of the arcade.

Stairway to roof: The stairs begin in the baptistry and lead to the choir loft and the roof just behind the bell arches; each flight is supported on an incomplete arch built against the walls of the stair well, unsupported from below.

Bells: There are two hanging in the two arches built above roof level; they are dated 1897

SAN ANTONIO de OQUITOA

Condition of church: Quite good; some repair to the church proper has been done since 1935. However, adobe walls west of the church are disappearing. The people of Oquitoa care for the church and still use extensive, old cemetery adjacent to the church. According to Senor Guillen, the priest from Altar usually comes only "when we call him".

Floors: Old brick,*perhaps soon to be covered with cement. A kerosene lamp burning in the sanctuary was lit two years ago by a man going to war; the lamp has been kept burning continuously, the man is now safely returned, and has promised money for a new cement floor. *(Except in sanctuary, where a cement floor is partly covered by linoleum).

Walls: Adobe with facing of burned brick (the small size seen elsewhere in dome construction). The bricks of the facade are worn, with rounded edges, especially on the ornamental bricks; the bricks facing the east wall show very little weathering (this side would be most protected from prevailing winds). On the rear and west walls most of the facing brick is gone, showing the dobe. The front part of the west wall, and the stairway leading to the choir loft have been refaced with brick (these outside stairs have been repaired since 1934--see negative # 2305).

Two buttresses of stone and cement (or mortar) brace the rear wall of the church.

Ceilings: All are flat. In the nave the old beams and corbels remain; since 1935 the sguaro ribs have been replaced with cane, laid at right angles to the beams; in the sanctuary the second layer remains saguaro ribs; the sacristy* has a new ceiling--joists overlain with cane; the baptistry ceiling is original, logs and saguaro ribs, and shows signs of leaking rather badly.

Exterior: Plastered, but original plaster gone except for a few small patches on east wall. Ornamental plaster work over entrance in fair dondition.

Interior: Whitewashed in 1945. In the nave, to the right of the entrance, is a wooden confessional; there are benches and prie dieu's, many artificial flowers, two new side altars (see negative # 2307). Two old statues were noticed; one an almost-life-size figure of Christ on the cross, carved wood, realistic primitive style, now clothed from waist to knees in a red velvet skirt trimmed in gold braid; the other a small wooden statue with carved robes painted to simulate brocade.

*The sacristy (the north room according to the woman who has the

SAN ANTONIO de QUITOA

Condition of church: Quite good; some repair to the church proper has been done since 1935. However, adobe walls west of the church are disappearing. The people of Quitoa care for the church and still use extensive, old cemetery adjacent to the church. According to Senor Guilien, the priest from Alter usually comes only "when we call him".

Floors: Old brick,* perhaps soon to be covered with cement. A kerosene lamp burning in the sanctuary was lit two years ago by a man going to war; the lamp has been kept burning continuously, the man is now safely returned, and has promised money for a new cement floor. *(Except in sanctuary, where a cement floor is partly covered by linoleum).

Walls: Adobe with facing of burned brick (the small size seen elsewhere in dome construction). The bricks of the façade are worn, with rounded edges, especially on the ornamental bricks; the bricks facing the east wall show very little weathering (this side would be most protected from prevailing winds). On the rear and west walls most of the facing brick is gone, showing the adobe. The front part of the west wall, and the stairway leading to the choir loft have been refaced with brick (these outside stairs have been repaired since 1934--see negative # 2303).

Two buttresses of stone and cement (or mortar) brace the rear wall of the church.

Ceilings: All are flat. In the nave the old beams and corbels remain; since 1935 the square ribs have been replaced with cane, laid at right angles to the beams; in the sanctuary the second layer remains square ribs; the sacristy has a new ceiling--joints overlain with cane; the baptistry ceiling is original, logs and square ribs, and shows signs of leaking rather badly.

Exterior: Plastered, but original plaster gone except for a few small patches on east wall. Ornamental plaster work over entrance in fair condition.

Interior: Whitewashed in 1943. In the nave, to the right of the entrance, is a wooden confessional; there are benches and pric dieu's, many artificial flowers, two new side altars (see negative # 2307). Two old statues were noticed; one an almost-life-size figure of Christ on the cross, carved wood, realistic primitive style, now clothed from waist to knees in a red velvet skirt trimmed in gold braid; the other a small wooden statue with carved robes painted to simulate brocade.

"The sacristy (the north room according to the woman who has the

OQUITOA (continued)

keys to the church--it would be more likely that the sacristy would open directly from the sanctuary and that the south room would be the baptistry--in reverse of the designations given on the plan in the 1935 report), contains old oil paintings, and the copper baptismal basin illustrated in pictures taken on the 1935 trip--see negative # 2310. This is the only complete basin and stand we saw; the base has been carved from one solid block of mesquite, with projections fitting inside the cylindrical base of the bowl.

A former doorway in the south wall of the baptistry has been blocked up; this room is not in good enough repair to use at present.

The flat choir loft is new wood construction, painted blue.

Cemetery: The walls designated as cemetery walls on the 1935 plan, are still traceable, but only 2-5 feet of the dobe bricks now show above the mound of ruined wall (negatives 8059, 2224, and 2305 show these walls in 1920, 1925, and 1934, respectively). Burials have been made inside these walls, and in the debris of the fallen walls, at the rear of the church, and covering most of the hilltop to the west and southwest of the church. Most of the graves are covered with high cement vaults, many of them with domes supported on columns. A type of grave decoration new to us was wreaths made of small, smoothed pieces of colored glass, wired into clusters.

Small building east of church: This small square building with a domed roof shows in negative # 2303; it is made of brick, with small blocked openings. The townspeople say it was used during the cholera epidemic of 1852, when "there was no time to make coffins--the dead were carried up the hill to the church and put in this building; sometimes the men carrying the bodies were sick and fell before they reached the church, and died where they fell".

keys to the church--it would be more likely that the sacristy would open directly from the sanctuary and that the south room would be the baptistry--in reverse of the designations given on the plan in the 1933 report), contains old oil paintings, and the copper baptismal basin illustrated in pictures taken on the 1933 trip--see negative # 2810. This is the only complete basin we found we saw; the base has been carved from the solid block of mes rite, with projections fitting inside the cylindrical base of the bowl.

former scenery in the south wall of the sanctuary has been closed up; this room is not in good enough repair to use at present.

The flat choir loft is new wood construction, painted blue.

Cemetery: The walls designated as cemetery walls on the 1933 plan, are still traceable, but only 1-3 feet of the hobe bricks now show above the mound of ruined wall (negatives 8089, 2824, and 2805 show these walls in 1930, 1933, and 1934, respectively). Burials have been made inside these walls and in the debris of the fallen walls, at the rear of the church, and covering most of the hilltop to the west and southwest of the church. Most of the graves are covered with high cement vaults, many of them with domes supported on columns. A type of grave decoration new to us was wreaths made of small, smoothed pieces of colored glass, wired into clusters.

Small building east of church: This small square building with a domed roof shows in negative # 2803; it is made of brick, with small blocked openings. The townspeople say it was used during the cholera epidemic of 1852, when "there was no time to make coffins--the dead were carried up the hill to the church and put in this building; sometimes the men carrying the bodies were sick and fell before they reached the church, and died where they fell".

SAN PEDRO y SAN PABLO de TUBUTAMA

Condition of church: Good; intelligently repaired, with a regard for the value of the original and the old. Four tie rods were put in this year, holding the north and south walls near the entrance, two at choir loft level, and two just above roof level. I can't judge of the technical judgment and skill of their repairs, but the people of Tubutama are proud of their church, and seem determined to preserve it, and the valuable furnishings inside the building.

The church is always open; the bells are rung in the morning and evening; the priest from Altar comes every month or two, or when sent for.

Foundations: Rubble stone in mortar, extending 2-3 feet above ground level.

Floors: Original brick; in nave rectangular brick laid diagonally; on stair landings triangular brick. The people have raised 700 peses for a new cement floor; we deplored hiding the old, worn brick--but as one man said "we have no widh to fall thru the floor into the graves of the padres below" (they know that padres are buried under the floor beneath the choir loft, but do not know which padres or any dates of burials--except that they are "antigua").

Walls: The two-story walls under the bell tower are adobe (with brick corners which look recent). The rest of the walls are brick, "puro" brick according to the men who have helped with repairs. The only stone I saw above the foundation was where patching had been done near the wall base. Cornice brick, like those at Tumacacori but smaller, are seen here.

Scaffolding holes show on the unplastered rear of the building; according to Senor Vasquez, who is well versed and accurate on mission history and evidently a thorough observer of this church, these holes were plugged and plastered originally.

Ceilings: Groin vault in nave; barrel vaults in transepts and sanctuary, hemispherical dome on high octagonal drum over crossing, hemispherical dome over bell tower. The Presidente and Senor Vasquez agreed that no support is necessary in making domes like these--one lays one course at a time and the bricks hold each other in place.

Exterior: Old plaster in fair condition on front of building; almost entirely gone on rear. A photograph taken in 1925 (negative # 2227) shows new plaster on large crossing dome; between that year and 1935 the drum, and dome and upper two storeys of the bell tower were plastered (see negatives 2226 and 8069). The plaster relief decoration of the facade is still in fair condition.

SAN PEDRO y SAN PABLO de TUSUTAMA

Exterior: Old plaster in fair condition on front of building; almost entirely gone on rear. A photograph taken in 1925 (negative # 2227) shows new plaster on large crossing dome; between that year and 1935 the drum and dome and upper two storeys of the bell tower were plastered (see negatives 2226 and 2054). The plaster relief decoration of the facade is still in fair condition.

Details: Groin vault in nave; barrel vaults in transepts and sanctuary, hemispherical dome on high octagonal drum over crossing, hemispherical dome over bell tower. The Presidente and Senor Vasquez agreed that no support is necessary in making domes like these--one lays one course at a time and the brick hold each other in place.

Scaffolding holes show on the unplastered rear of the building; according to Senor Vasquez, who is well versed and accurate on mission history and evidently a thorough observer of this church, these holes were plugged and plastered originally.

Foundations: Rubble stone in mortar, extending 2-3 feet above ground level.

Floors: Original brick; in nave rectangular brick laid diagonally; on stair landings triangular brick. The people have raised 700 pesos for a new cement floor; we deplored ridding the old, worn brick--but as one man said "we have no wish to fall thru the floor into the graves of the padres below" (they know that padres are buried under the floor beneath the choir loft, but do not know which padres or any dates of burials--except that they are "antiguos").

Walls: The two-story walls under the bell tower are adobe (with brick corners which look recent). The rest of the walls are brick, "puro" brick according to the men who have helped with repairs. The only stone I saw above the foundation was where patching had been done near the wall base. Dornice brick, like those at Tumacacori but smaller, are seen here.

Condition of church: Good; intelligently repaired, with a regard for the value of the original and the old. Four tie rods were put in this year, holding the north and south walls near the entrance, two at choir loft level, and two just above roof level. I can't judge of the technical judgment and skill of their repairs, but the people of Tubutama are proud of their church, and seem determined to preserve it, and the valuable furnishings inside the building.

The church is always open; the bells are rung in the morning and evening; the priest from Altar comes every month or two, or when sent for.

TUBUTAMA (continued)

Interior: Whitewashed, except for cornice and ceilings in main body of church. The corniee shows old black and red painting (reminiscent of the style of painting on the old triangular altar bases at Caborca); the ceilings are ornate with plaster relief and show faint traces of old paint.

The altars in the transepts are on triangular bases (like the older altars in the remaining transept at Caborca); the walls behind the altars are columned and covered with plaster relief decoration in the style of the transept ceilings (and also in the style of the reredos decoration in the Caborca transept).

The reredos of the main altar, in the sanctuary, is new; a photograph made in 1935 (negative # 2358) shows the altar and reredos dismantled during the time the churches of Mexico were closed. Many of the old furnishings were evidently saved, and replaced when the church was re-opened--the condition of the sanctuary now approximates that shown in a photograph of 1925 (negative 2235).

There are several old oil paintings (one of "San Pedro Apostol", from the bottom of which are suspended two silver fishes); and fine examples of santos. In the south transept is a large carved figure of Christ on the cross, frighteningly realistic, covered with netting; a similar figure also covered is in the north transept. A statue of St. Francis in the south transept has beautifully painted carved wooden robes.

A wooden confessional is in the north transept. The pulpit, recent, (see negative # 2235) stands near the north transept. A copper basin, old, just to the left of the entrance, is used as a stoup. In the nave are prie dieu's--no benches or pews.

Several of the carved wooden pomegranates remain suspended from the choir loft floor; they represent a stage between the blossom and the fully developed fruit, are in full round, and show traces of red and gilt paint.

In the baptistry are pieces of an earlier reredos for the main altar; the wood is carved in high relief flowers and angels, gilded and painted. Here also is a tabernacle covered with gilt (the gilt of the interior in perfect condition); a shrine ("sagrario"), carved and gilded; and the sacristy chest illustrated in the 1935 report.

In the sacristy are five oil paintings "from Spain"--one is thought to have been painted by "Raphael Murillo"; a copper baptismal

TOUR A (continued)

Interior: Whitewashed, except for cornice and ceilings in main body of church. The cornice shows old black and red painting (reminiscent of the style of painting on the old triangular altar bases at Daporo); the ceilings are ornate with plaster relief and show faint traces of old paint.

The altars in the transept are on triangular bases (like the older altars in the remaining transept at Daporo); the walls behind the altars are columned and covered with plaster relief decoration in the style of the transept ceilings (and also in the style of the Teredos decoration in the Daporo transept).

The retedos of the main altar in the sanctuary, is new; a photograph made in 1955 (negative # 2538) shows the altar and retedos dismantled during the time the churches of Iexico were closed. Many of the old furnishings were evidently saved, and replaced when the church was re-opened--the condition of the sanctuary now approximates that shown in a photograph of 1955 (negative 2538).

There are several old oil paintings (one of "San Pedro Apostol", from the bottom of which are suspended two silver fishes); and five examples of sculpture. In the south transept is a large carved figure of Christ on the cross, frightfully realistic, covered with nettling; a similar figure also covered is in the north transept. A statue of St. Francis in the south transept has beautifully painted carved wooden robes.

A wooden confessional is in the north transept. The pulpit, recent,(see negative # 2538) stands near the north transept. A copper basin, old, just to the left of the entrance, is used as a stoup. In the nave are pric dieu's--no benches or pews.

Several of the carved wooden pomegranates remain suspended from the choir loft floor; they represent a stage between the blossom and the fully developed fruit, are in full round, and show traces of red and gilt paint.

In the baptistry are traces of an earlier retedos for the main altar; the wood is carved in high relief flowers and angels, gilded and painted. There also is a tabernacle covered with gilt (the gilt of the interior in perfect condition); a shrine ("Nagrario", carved and gilded; and the sacristy chest illustrated in the 1955 report.

In the sacristy are five oil paintings "from Spain"--one is thought to have been painted by "Raphael Murillo"; a copper baptismal

basin; an old copper pail "for sprinkling holy water"; a framed scroll in Latin; a leather case for the vessel used in Benediction of the Blessed Sacrament--satin lined.

Stairs: The base of the bell towers is the stair well, with landing and hall at choir loft level; stairs end at roof level in the west wall of the bell tower proper.

Bells: There are now eight bells ("used to be twelve"); we did not climb to inspect those of the upper level. On the lower level are:

In east arch: 1743 SAN INACIO

In north " : 1742 SANTA BARBARA

In west " : "very old"--no date legible

In south " : APRIL 9 1875 SANTA CATALINA (made for) Teodoro C. Romero

Choir Loft:

The rail is old; there is a hymnal stand hewn from mesquite, with one log forming the base and upright. The choir loft is braced from below by a pole and supports (see negative # 2359).

TUSCULUM. (continued)

basin; an old copper pail "for sprinkling holy water"; a framed scroll in Latin; a leather case for the vessel used in Benediction of the Blessed Sacrament--satin lined.

Stairs: The base of the bell tower is the attic well, with landing and hall at choir loft level; thence and at roof level in the west wall of the bell tower proper.

Bells: There are now eight bells ("used to be twelve"); we did not climb to inspect those of the upper level. On the lower level are:

In east arch: 1763 CAST IN BALTO

In north " : 1748 CAST BY PAUL REVERE

In west " : "very old"--no date legible

In south " : APRIL 9 1875 MADE BY C.A.T.C.M. (made for) Teodoro C. Romero

Choir Loft:

The rail is old; there is a hymnal stand here from Mesquite, with one log forming the base and upright. The choir loft is braced from below by a pole and supports (see negative # 2559).

KODACHROMES:

Caborca
From northwest
From southwest (shows silhouette of partially fallen crossing and dome)
From southeast (looking into crossing and dome from river bed)
Detail of partly fallen crossing dome
From northeast (detail of partially fallen sacristy and cloisters)
Remnant of arcade (adjoining church on north)
Exposed older altar in north transept
Detail of buttress against south bell tower (ruins of old Caborca in background)
Detail of entrance and door
Bell in north bell tower
Upper part of facade

Pitiquito
From southwest
Detail of northwest corner, showing recent bell arches and old bell rope grooves in wall
Copper baptismal basin
Dome detail from roof (showing crossing dome and barrel vaults)

Oquitoa
From south (showing burial chamber east of church)
From southwest
Cemetery and church from southwest
Detail of one grave

Tubutama
From southeast
Lower facade
Detail of rear (baptistry and transept walls)
" " " (lower part of bell tower)
Santa Barbara, 1742 bell (looking northwest across Altar Valley)

ROUCHCOMBE:

Exteriors

From northwest
From southwest (across village green)
From southeast (looking into crossing and down river bed)
From southeast (across allotments of partially filled crossing and dam)
Detail of partly filled crossing dam (from river bed)
From northeast (detail of partly filled earlier dam)
Detail of drains and drain cover (flooding overlay and elevators)
Detail of buttress against south part tower (ruins of old Chapel: in background)
Detail of entrance and door
Detail in north bell tower
Upper part of facade

Interiors

From southwest
Detail of tarnished screen, showing recent bell frames and old bell
Copper daylight panels
Some details from 1960 (showing stencilled dates and pewter vases)

Tablets

From south (showing burial chamber seat at centre)
From southwest
Cemetery and church from southwest
Detail of one stone

Tombstones

Monte Gripari, 1948 bell (showing workmen's scores like Aztec)
" " (Tower part of bell tower)
Detail of four (partially and transept walls)
Lower façade
From southeast
From southwest
From northwest

Exteriors

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION THREE
SANTA FE, NEW MEXICO

September 5, 1947.

MEMORANDUM for the Custodian, Tumacacori.

Here is some information concerning the final days of mission activity in New Mexico, Arizona, and California. I received it from Arthur J. O. Anderson, Museum of New Mexico. Anderson claims not to know too much about the situation in Arizona and California for the missions there were operated by a different college than those of New Mexico, but, in general, mission activity on the frontier was about the same all over during the early days of the republic.

In New Mexico, secularization started earlier than on the Western Slope. The Bishop of Durango apparently had beautiful dreams of the great wealth of New Mexico and wanted the province for his parish priests. He started sniping at the Province of the Holy Gospel (Franciscan headquarters in Mexico City) late in the 18th Century. Many of the New Mexico missions were secularized then but since the Bishop had rather limited funds and the New Mexico parishes could not keep up their end, many of the parishes were neglected and some abandoned.

The situation in Sonora and California was not quite as bad, for the college at Querétaro continued in charge of the missions until Mexican independence. Apparently there was never any wholesale expulsion of priests, either parish or missionary. In 1828 a law was passed by the Mexican Congress, which expelled from the country all priests of Spanish birth; this meant that nearly all the resident priests had to go. The anticlerical feeling in Mexico became stronger after 1833 and Anderson is of the opinion that all the missions of Sonora (Arizona) and California were secularized or abandoned by 1834.

I hope this helps you. Anderson had to dig this information (some of it quite indefinite) from several sources. He gave me no specific references. This is a summary of two conversations with him.

Charlie R. Steen,
Archeologist.

Reports on mission churches Primera Alta

...s on a trip to Bacerac

...rac - Dec. 28 - Jan 4 - (1950 1951)

D. y Mrs. E. H. Spicer -

Robert Tomaz

Richard L Whiting

Field notes on church at Bacerac -

2710.

...o Dec 29-Jan 3, 1950-1951

..., Bavispe and Bacerac.
...lives in Moctezuma.(15)

...down in the earthquake of
...e years old. (...op keeper,

...ilt. The old church dated
...ng job was finished about
...a second, smaller tower
...shed due to lack of funds
...e at this point. The tower
...gs to the right of the tower.
...lts over the nave are

...r with Bavispe and San Miguel
...cerac 1-1-52)

...Virgen ...ry. The patron
(Bermudez Family)

...s near as I could make
...ers and vocal solo followed
...prayer. ////////////////////
...ces and a reed organ. The
...lcony ?). Two choir boys
...ler woman at the altar,
...fore the service and
...said that the local Padre
...illage.) Two candles
... Virgen of Guadalupe on the
...s encased "Christ entombed"
...te elaborate, was still
...parently all the men in
...e women on the right. I

... Cross + Holy Water

...pportunity I had, to
...ly the old church consisted
...towers on each side (right
...o the left tower is through
a door in the back of the nave. Choir left over the back of the nave supported by a single arch. Nave roofed with four equal barrel vaults running at right angles to the axis of the nave. Window high on south wall, now blocked in matches similar window in mid top front of left tower base. How much of the rest of the church is old is not certain in my mind. I think the brick work is uniform on the walls of the nave and the trancept, but they may be completely new. The three barrel vaults (parallel to those over the nave) are probably new. They are supported by three large cylindrical pillars with pointed arches on the sides. These I suspect are new. There is a door out of the church in the left trancept, none in the ~~left~~ however it is possible that an old door has been filled in here. There is a platform of brick outside the church at this point indicating possibly some kind of a structure extended to the trancepts at this point in some

Notes on Churches: Bacerac and Bavispe Dec 29-Jan 3, 1950-1951
by A.F.Whiting

There are new churches in ~~/-n-Miguel~~, Bavispe and Bacerac. They are the work of an architect who lives in Moctezuma.(LB)

The old church in Bavispe was shaken down in the earthquake of 1886. The present church is about five years old. (Shop keeper, Bavispe)

The present church in Bacerac is rebuilt. The old church dated from over 100 years ago. The rebuilding job was finished about four years ago. They planned to have a second, smaller tower on the left, but it has not been finished due to lack of funds and the old structure is still visable at this point. The tower on the right, the facade, the buildings to the right of the tower and the transcept are all new. The vaults over the nave are old.

In the old days this was the center with Bavispe and San Miguel as visitas. " (Laurence Bermudez of Bacerac 1-1-52)

The Main Saint of the Church is the Virgen Mary. The patron of the town is the "entombed Christ". (Bermudez Family)

I attended a rosary on New Years Eve. As near as I could make out it was routine. Six units of prayers and vocal solo followed by a longer extensive response-unison prayer. ~~The~~ The music involved several female voices and a reed organ. The service was lead by a woman(in the balcony ?). Two choir boys operated under the direction of a older woman at the altar, lighting six candles on that altar before the service and extinguishing them afterwards.(It is said that the local Padre is temporarily absent in some other village.) Two candles were lited before the painting of the Virgen ofGuadalupe on the east transcept and two before the glass encased "Christ entombed" on my left. (7) The nativity scene, quite elaborate, was still in place to the left of the altar. Apparently all the men in the sundience sat on the left, all the women on the right. I saw no hats on any of the women.

9 : Cross + Holy water

It is difficult with what little opportunity I had, to describe the chur in detail. Apparently the old church consisted of a nave with at least the base of towers on each side (Right side may be entirely new). Entrance to the left tower is through a door in the back of the nave. Choir loft over the back of the nave supported by a single arch. Nave roofed with four equal barrel vaults running at right angles to the axis of the nave. Window high on south wall, now blocked in matches similar window in mid top front of left tower base. How much of the rest of the church is old is not certain in my mind. I think the brick work is uniform on the walls of the nave and the transcept, but they may be completely new. The three barrel vaults (parallel to those over the nave) are probably new. They are supported by three large cylindrical pillars with pointed arches on the sides. These I suspect are new. There is a door out of the church in the left transcept, none in the ~~west~~. However it is possible that an old door has been filled in here. There is a platform of brick outside the church at this point indicating possibly some kind of a structure external to the transcept at this point in some

ROUTE FROM ANTELOPE WELLS TO BACERAC

Traveling time in minutes

Antelope Wells is the USA Customs House, a ranch house. The road goes southwest from here to the border gate and

0 Berrendo, the Mexican port of entry. Here is a garrison, Customs and Immigration officials, and a gasoline station.

(From here a road leads directly south (or SE) to Casas Gran

2 The Road to Bacerac turns back from the Gasoline station briefly northwest, and then west along the border fence, tow the mountains. A road is said to lead from here through these mountains into the valley beyond. This is to be avoide The road swings west, passing north of a row of mountains which form the east side of the valley down which we are to travel. Turn south.

5 Pass east of a sharp conical peak, ("El Berrendo"?) which is a landmark, particularly on the return trip.

5 Three water tanks in succession. Road tends to be obscure.
5 Pass through a gate at the first one. If a choice, take L. fo
5
7 A sharp arroyo, take L. fork.

3 Cattle Guard: West of this (Road goes N. of Fence) is a ranch and air field. ca 5 min drive. (San Francisco ?) There is no point in going there. We did.

16 Cattle Guard. The range to the east is becoming important.

Soon pass granite outcrops on the west, followed by a good spring. A cowboy camp was here at the time we camped there.

8 Cattle Guard. A west fork here apparently leads to a ranch, and windmill. (It is possible this is the proper turn west.)

5 There is a corral on the west side of the road. Hidden by this is a well traveled road swinging west around the southside of the corral, down into the deep arroyo, and on west across the valley. This road leads south along the west side of the valley. Take it.

ression:

The road however, at the corral does continue south, as we found to our woe, eventually arriving at the south end of
(50) the mountain range. There, after a sharp turn east, is Howards Ranch,"Vienton". Driving west from here one arrives at a windmill. South from this is a road, but with very high centers. Undoubtedly the roads lead from here to the west side of the valley, probably through El Coyote, but we could not make them.

(45) If you drive along the air strip, southeast from Howard's ranch you join a well traveled road which leads south to Casas Grandes. I suspect this is a continuation of the road

(10) south from El Berrendo. It passes under a telephone line and under that line at this point is a road leading west which if I had to do over again (God Forbid) I would take. (15) Actually we went south nearly to a river and then headed (35) west to Ojitos, a nearly abandoned village approximately south of Howard's Ranch. I think the road under the Telephone lines would have gotten us there just as quick. Ojitos is a difficult place to get out of. Stick to the main traveled road heading west, and with luck you arrive (43) at the Red Gate, "Puerto Colorado". This is a route not to follow as it leads much to far southeast. By far the bbest route is to go west at the Corral, and come down the west side of the valley.

On our way out we nearly did this. Let us say, that it 8 is possible to go from the Corral, west across the valley 44 and south to El Coyote, and from here to sig-sag southwest 23 to the fine ranch of Santa Anita. This is not the main road. I suspect that there is a more direct route south from El Coyote to the Puerto Colorado, as Santa Anita is considerably west of them both. However, there is, let it be said from our experience, a road from Santa Anita 26 southeast to Panuelas, which is only 4 a short distance north of the Puerto Colorado.

The directions we received, however, indicate that there is a road along the west side of the valley which is better and more direct than that south to Panuelas and the Puerto Colorado. It is possible that this goes through El Coyote and Santa Anita and then southwest, but of this I am not sure.

The Road from Puerto Colorado ~~west is~~ to Bavispe and Bacoachi is well traveled and usually clear. It passes under a 21 a telephone line and then begins to wind up into the foothills. 19 There is a well and several abandoned houses (Punto de Agua where we spent one night. These are close to the road on 8 the south-east side. Shortly beyond this there is a cattle guard. Probably somewhere between this point and the Puerto Colorado there is a road leading northeast to follow along the west side of the valley and Berrendo.

Beyond this cattle guard is a river, in portions of which we found running water. The road is now over lava and rough. Eventually one comes to an encouraging sign 57 indicating that you are going to "Sonora". 4

Soon after this the real climbing starts. By now you are in a grove of oaks, and at the top of the pass (said 21 to be 7000 feet) is reached there is yellow pine. The descent is rapid, rough in spots, and there is little opportunity to leave the main road, at least on a side road. There are a few (abandoned ?) houses, wells, etc. 74 scattered along this road. Eventually you arrive at the base of the mountain. Here is the Bavispe River. Directly across is the town of San Miguel. To the north a road, said to be passable only to trucks with compound gear, leads to Agua Prieta. Turning south along the east side of the 20 river soon brings you to a ford just north of Bavispe. This had been deepened by an irrigation dam at the time of our visit, but proved to be quite shallow.

From Bavispe South

51 From Bavispe south to Bacerac there is a well traveled road along the west side of the river. There are some rough spots, but in general it is easily traveled. About half way between, on the eastside of the road is a pink ("Blanco") plastered ranch house belonging to Lorenzo Bermudez, of Bacerac.

The road south from Bacerac crosses the river in an easy ford and goes/east up a wide wash. Not far
7 from the river a road leads south (?)(ie to the right) across the wash and up a narrow arroyo, to the plateau. It climbs down into another wash, with some difficulty,
20 eventually arrives at a house. Almost immediately after this there is a gate in the fence and a track leads (SE,
12 to the left)to the ranch of John Swanson. A well marked
15 foot trail leads from here (NE ?) over a ridge to a bluff where there is an archeological site. Continuing on beyond this in a wide open valley floor are the farms belong to the Matepuya's, a Mickapoo family, originally from Wisconn

The road from Bacerac to Moctezuma is said to be good, except that there is a forking of a river which is, at this season (Jan-F likely to be high and impassable.

Gasoline has to be brought in from Agua Prieta and is at times difficult to obtain, but is at times available in Bavispe, Bacerac or San Miguel. Mail leaves Bacerac (And the other two towns) for Agua Prieta every other day during the week. Routine supplies and local food products are available in any of the numerous stores in these villages.

There is no piped water in Bacerac. An electrical plant supplies the church, town hall, but that is about all.

There is a flying field near Bacerac. In extreeme cases, it is said, when the town is cut off by snow in the mountains, the necessary supplies can be flown in.

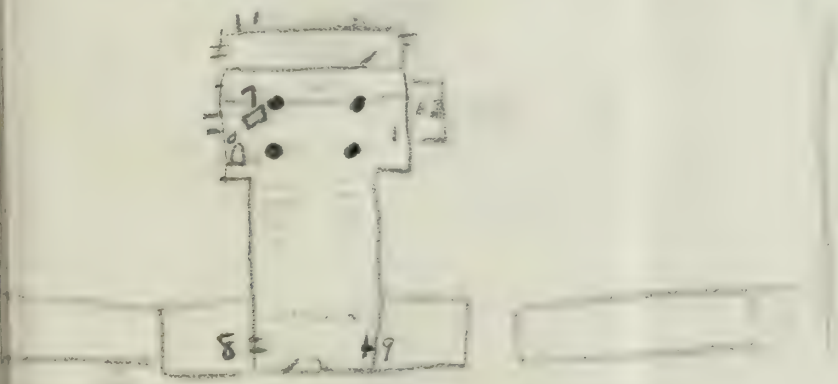
There is no telephone. A ham by Radio (Short Wave ?) has conatact with Agua Prieta, etc. It is said that there is a doctor in Bacerac.

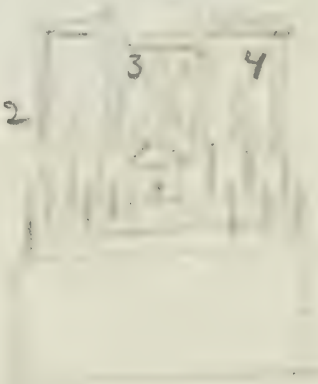
The bell tower and the facade, the altar and the interior furnishings of the church are contemporary in style and construction. ② The central figure ③ of mary is dressed in real clothing. The similar christ (Sacred Heart) figure on the left may also be in real clothing. The smaller saint Anthony on the ④ right is probably not. There is a figure of some kind in the left transept which I did not see. ⑤ The figure of "Christ entombed" is enclosed in a glass case contemporary with the altar.

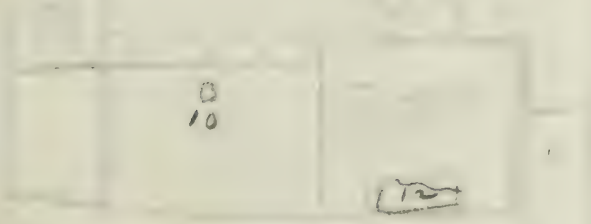
The vestry behind the altar, entrance to the right, is ~~similarly~~ apparently of some age.

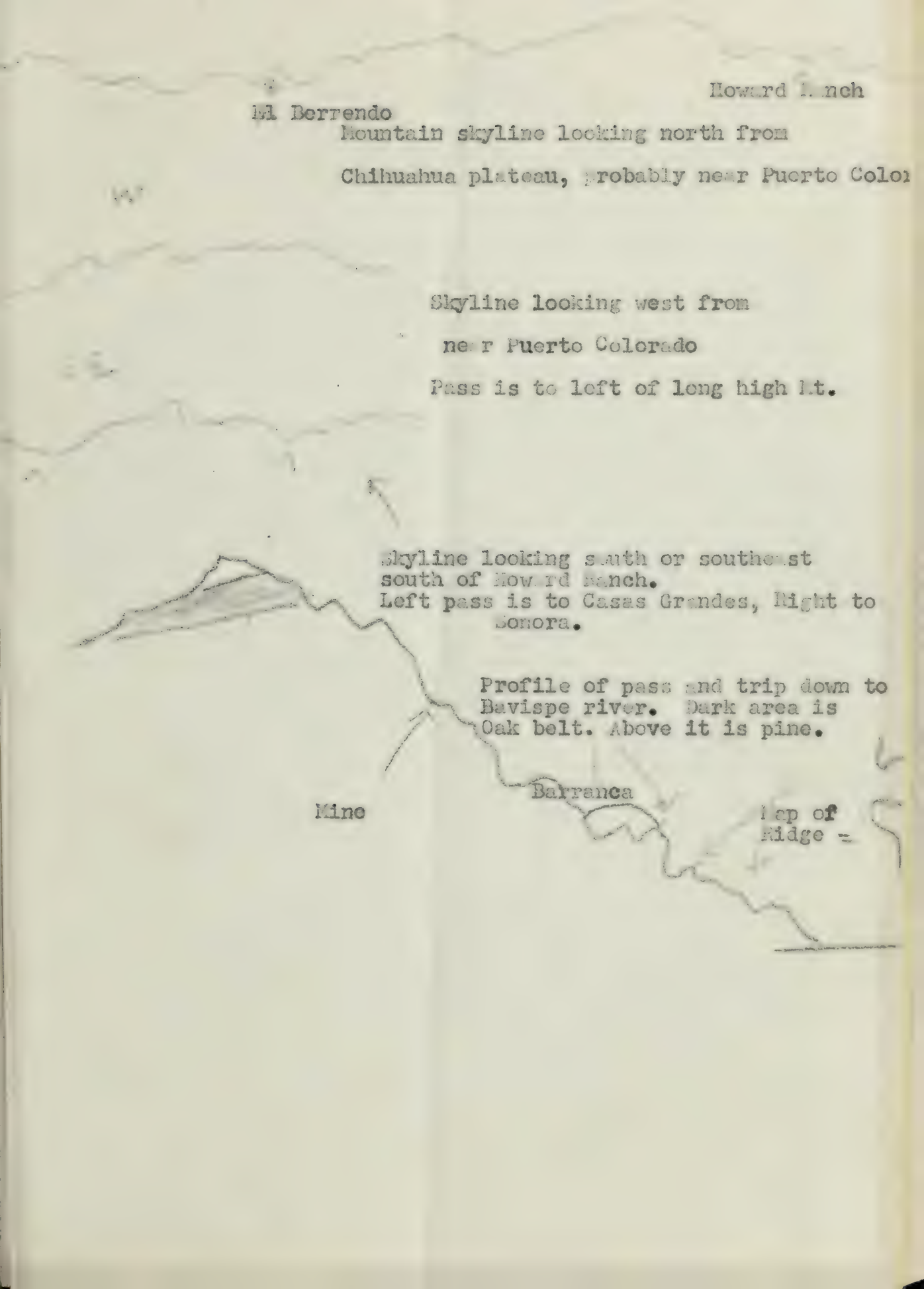
Apparently we have here an old Franciscan, burnt brick church with two bell towers and central portion roughly similar in general form to Bac-Caborca. In the absence of the Father I could not get any information upon church records. There may be a good deal of historic interest here, but from what little I learned, nothing specific is indicated. It is apparent that the area suffered from Apache raids and has been largely repopulated in the last fifty or sixty years. Under these circumstances, it is not impossible that the church, like Tumacacori, was abandoned at least for a time, and the records removed to some other church.

Lorence Bermudez said that there were not any private velorios held in private homes at Christmas time. In spite of family devotions, carried on by the women and children, he himself is indifferent or hostile to the church and religious activities. This information should be carefully checked before being accepted as final.








Howard Ranch
El Berrendo
Mountain skyline looking north from
Chihuahua plateau, probably near Puerto Colo
Skyline looking west from
near Puerto Colorado
Pass is to left of long high Mt.
Skyline looking south or southeast
south of Howard Ranch.
Left pass is to Casas Grandes, Right to
Sonora.
Profile of pass and trip down to
Bavispe river. Dark area is
Oak belt. Above it is pine.
Barranca
Mine
Top of
Ridge

REPORT OF A FIELD TRIP TO MISSION CHURCHES IN NORTHERN SONORA

By

Earl Jackson

Follows my report on a field trip made into Sonora, covering the period May 16 through May 22, 1951. Purpose of the trip was historical research in connection with Tumacacori National Monument. Primary object was to examine historical documents pertaining to mission history of the region, secondary object to attain greater familiarity with churches of the "Kino" mission chain. Also, in line with the expressed desire of Governor Ignacio Soto, of Sonora, who kindly furnished a letter of introduction to Sonoran authorities, particular attention was given to restoration possibilities at Cocospera Mission. This mission church lies on the route of a new highway which is being built between Imuris and Cananea.

Accompanied by my wife (whose knowledge of oral Spanish is far greater than mine), who served as non-paid interpreter, collaborator, and stenographer, I left Tumacacori National Monument on the afternoon of May 16, in a government pickup truck. We entered Sonora at Nogales on the same day. On the return trip we left Sonora at Sasabe, late in the morning of May 22, arriving back at Tumacacori the same day.

The attached sketch map shows our route of travel, with distances between points taken from our log. We visited the sites of missions and missionary activity at: Bacoancos, Cocospera, San Ignacio, Tubutama, Santa Theresa, Atil, Oquitoa, Pitiquito, and Caborca. Recent churches were visited at Imuris, Atil, and Altar. Parish and mission records were scanned and abstracted at Magdalena and Altar. Record photographs, in black and

white and in kodachrome, were taken at the various mission sites, particularly to compare with photos taken in 1935 (shown in a report by Scofield De Long and Leffler B. Miller, of the National Park Service, entitled "Architecture of the Sonora Missions"). This comparison will clarify extent of alteration or disintegration in the nearly 16 years of the interim period.

At Bacoancos, established as a ranch by Father Kino in 1697, we found adobe wall ruins atop a hill which juts from higher hills sharply out into the south side of the Santa Cruz River flats. It must have been an almost ideal spot for a defensive site, overlooking easily watered and fertile farming land. The site apparently was an alignment of house ruins around a central open area, with an outer defensive wall surrounding it. Only slight remnants of adobe walls are now standing above the mounds of dissolved material. We saw no evidence of any structure on the flat around the base of the hill. No pictures were taken, as they would have revealed nothing.

Cocospera Mission is truly in a lamentable condition, but is a fascinating building. Vandalism and weathering have taken a very heavy toll. Remnants of ceiling beams projecting out from the nave walls, and broken and weak portions of adobe and brick and plaster at the tops of the walls, render the structure actually unsafe to enter, although this fact keeps nobody out. The older adobe brick and mud mortar walls (presumably dating from Kino's time) were later covered with a thin facing of burned adobe brick and gypsum plaster. In many places, especially at the front of the building, the later brick shell has separated from the adobe wall at the top, which leaves the shell in a precarious state.

Cocospera, while in a ragged and broken condition, is still so very rich in architectural details and remnants of painted surfaces, some lavishly decorated, that it is unquestionably highly deserving of permanent protection from weather and vandalism.

Governor Soto has expressed interest in getting Cocospera restored. Sr. Leopoldo G. Urquides, governor of the Magdalena Lions Club, says that the Lions Clubs of Magdalena and Cananea plan, when permission from the government is received, to repair Cocospera. They expect it to be a real tourist attraction when completion of the Imuris-Cananea road improvement is done.

Here is my recommendation to Governor Soto and to the Lions Clubs of Magdalena and Cananea concerning preservation and future tourist use of Cocospera Mission. This recommendation is based on 20 years of National Park Service experience in close connection with preservation and public use of historic and prehistoric buildings in our own Southwest.

Complete reconstruction of all missing parts of the church would be a mistake. Interior plaster details are too fragile to bear strain of supporting replacement parts. To rip off weak plaster and replace it would destroy too much of the priceless original features. Yet, since the interior plaster features, even though weak by original standards, are made of very strong gypsum plaster, infinitely better than lime plaster ~~xxx~~ except in resistance to water erosion, they would, with some grouting and bracing, last for a long time - provided a water tight roof is put over the top.

The roof is obviously the key to preservation. There are two possibilities: either replace the several missing feet at tops of walls, to

support construction of a roof, or build a shelter over the entire building which is supported by its own columns. The latter method is illustrated by the ruins shelter at Casa Grande National Monument, near Coolidge, Arizona.

Advantages of the independently supported shelter are:

1. Protects church without need for tedious and hazardous modification of upper walls.

2. Allows for ample overhang at eaves, giving more protection to outer wall surfaces than would be possible with a roof.

3. Would be of much faster construction (with quicker protection) than an accurate stabilization of upper walls and the erection of a roof.

4. Probably would be cheaper than roof construction, which latter would involve:

a. Exploratory digging to test base of walls, so as to establish their capacity to support weight of a new roof. Several feet of dissolved wall and ceiling material now prevent adequate judgement of strength of lower walls.

b. Rebuilding of upper portions of walls.

c. Duplication of original complicated roof.

5. After construction of this type shelter, ample time would exist for thorough long-term study, scaling of rotten parts, bracing and limited repair of weak parts, and excavation to original floor levels. Budgetary considerations, at least in our own country, often require that work of this amount be done a little at a time, during a period of several years.

Disadvantages of the independently supported shelter are:

1. It is unesthetic.

2. When done, you have spent all that money and still do not have a stabilized or repaired church.

3. The shelter is protection only from rain, not from moisture pulled by capillary action into the bases of the walls from the ground. However, this last objection is not, I believe, a serious one, at this site. The mission of Cocospera is on high, well drained ground, and its wall materials are of harder than average adobe, brick and plaster for the period. In any event, an adequate diversion ditch should be constructed to divert any possible running rain water well away from bases of walls.

If the idea of the independently supported shelter is not to be used, and a roof for the church is decided upon, the question immediately arises, "what type of roof should be built?" Would it be an accurate reconstruction of the original arched and groin vaulted roof, surmounted by its later period gable and tile, or would it be simply an admittedly modern style roof merely to keep out the rains? In either case, great care would be required in working around original fragile structural remains of the interior portions, and considerable rebuilding would be needed to level off tops of walls for a roof support.

If adequate funds are to be made available, I definitely recommend putting up the independent shelter, making it a good one, and as soon as possible. I am convinced the excellent basic structural features are strong enough and sound enough that a good job of stabilization, with a minimum of actual restoration, can be done. This work would require real craftsmen, and time. No logical decision can be made on whether or not to restore the church roof until after the soundness of wall bases has been determined, and this must await thorough test-trenching through deep

fill, both inside and outside the church.

Beyond any question, there should be no wholesale removal of earth fill until there is assurance the entire building is protected from rain. Earth fill is the best protection, Nature's own preservative, for the lower walls, as long as it is dry.

Another item is of paramount importance. Me of the National Park Service long ago learned that no man made structure can long remain in good condition without regular attention to recurring maintenance needs, and protection from tourists. If a fine road is built past Cocospera, and advertised to attract increasing numbers of tourists to see the fine old church, there will have to be some person who can be there daily to accompany visitors through the building and grounds - otherwise, the increased visitation would simply insure reduction of the site to utter ruin. Perhaps, when visitor travel becomes heavy, collection of a guide fee would pay the cost of protection.

Near Cocospera we met and chatted with Sr. Jose Elias, who owns the land around the church. He had dug a deep excavation in the hillside near the church, and has two huge stacks of cement blocks at hand. He is going to build a chapel and a tomb for his family in this excavation. He showed us the wrought iron doors which are already made in preparation for use on these structures.

A short distance farther down the Cocospera valley we stopped at the Hacienda Cocospera, and had a very pleasant and instructive chat with Sr. and Sra. A.A. Joffroy on the history of the mission.

Our journey resumed, we drove on down the extremely beautiful and well-watered Cocospera Canyon. At Imuris we looked into the modern church

for a glance at the huge black crucifix and black figure of Christ, called "Nuestro Senor de Esquipula," which hung originally in Cocospera Mission.

Southward from Imuris, we were surprised and pleased to see a little sign marking the turn-off point from the carretera for the road to San Ignacio. We had been to San Ignacio before, and at this time simply took record photos of the exterior.

In Magdalena I presented my credentials to the Sacerdote, Father Santos Sainz. He obligingly got out the old church records for that district, and we spent some time perusing them and making notes. There were baptismal records, in part, for the years 1824 through 1849, for Terrenate, La Mesa, Santa Marta, Magdalena, Santa Ana, San Lorenzo, San Ignacio, Imuris, Cocospera, Higuis, Cucurpe, Tuson, San Xavier del Bac, Santa Cruz, Tubac, and Tumacacori. Forty eight baptisms at Tumacacori in 1844, 46, and 47 are significant additions to our knowledge of what was hitherto a blank spot in Tumacacori history.

Next, we visited Sr. Leopoldo G. Urquides, governor of the District B-1 of the Lions Clubs, which includes Cananea, Cocospera, and Tubutama. He was very courteous, and quite desirous of getting any ideas we have on repairing Cocospera. I promised to write him after finishing the trip, and will mail him the portion of this report dealing with Cocospera.

Onward to Santa Ana we went, then westward and north to Tubutama. Sr. Bustamente, the presidente, was absent at the time, but his wife was very hospitable to us, and we made their home our headquarters while there. Detailed examination was made of interior and exterior of the old church, and much helpful information was given by Sra. Bustamente, and by Sr. Ramon F. Vasquez, a former professor and present store proprietor.

Going westward from Tubutama we soon passed the recently finished Altar River earthen dam, which has a lot of water in it, but is between three and four feet below the high water mark. Two years ago we saw this dam just beginning to fill up.

At the site of Santa Teresa we were disappointed at the badly ruined condition of the L shaped church and the remnants of adjacent structures. Although walls are still 8 to 10 feet high, there is no clearcut visible proof that it was even a church.

At San Francisco de Ati, about 4½ miles west of Santa Theresa, we found the old church (also L shaped, but clearly once a church) had deteriorated greatly since 1935. Part of the old building now houses a small barn and a live cow. We went through the recent church, in front of and slightly to the side of the old one. It is quite plain by comparison with many recent churches, but very attractive, and with a somewhat similar ground plan to the old one. The statue of the patron saint, St. Francis of Assissi, occupying the upper niche above the main altar, was covered over this day, May 19, by a large picture of Nuestra Senora de Guadalupe, because, in the words of an aged cicerone from next door "a Guadalupeno was just married here."

Following the Altar Valley for about 13 miles westward, much of the route going past recently cleared land now in cotton and wheat, (result of the new dam) we reached the picturesque town of Oquitoa, which spreads round the toe and over the edge of a hill. On top of the hill we renewed acquaintance with the simple and charming old church of San Antonio de Oquitoa, surrounded by the elaborate grave markers and tombs of a much later period.

At Altar we visited the impressive modern church (the original church of this old presidio town was demolished many years ago). Then we hunted up

the Senor Cura for this district, Father Roberto Gonzales, who lives just behind the church. Credentials were presented, and we found this energetic and capable young man a veritable font of knowledge about the people of the valley. All the old church records in his custody were placed at our disposal, and we spent the better part of two days scanning them and abstracting material which seemed pertinent to the Tumacacori region. Baptismal, marriage, and burial records, running into many hundreds of pages, gave partial histories of the towns of Tubutama, Altar, Pitiquito, Caborca, Atil, Santa Theresa, Cieneguilla, Alamitos, and Oquitoa, and ranged from as early as 1757 to as late as 1858.

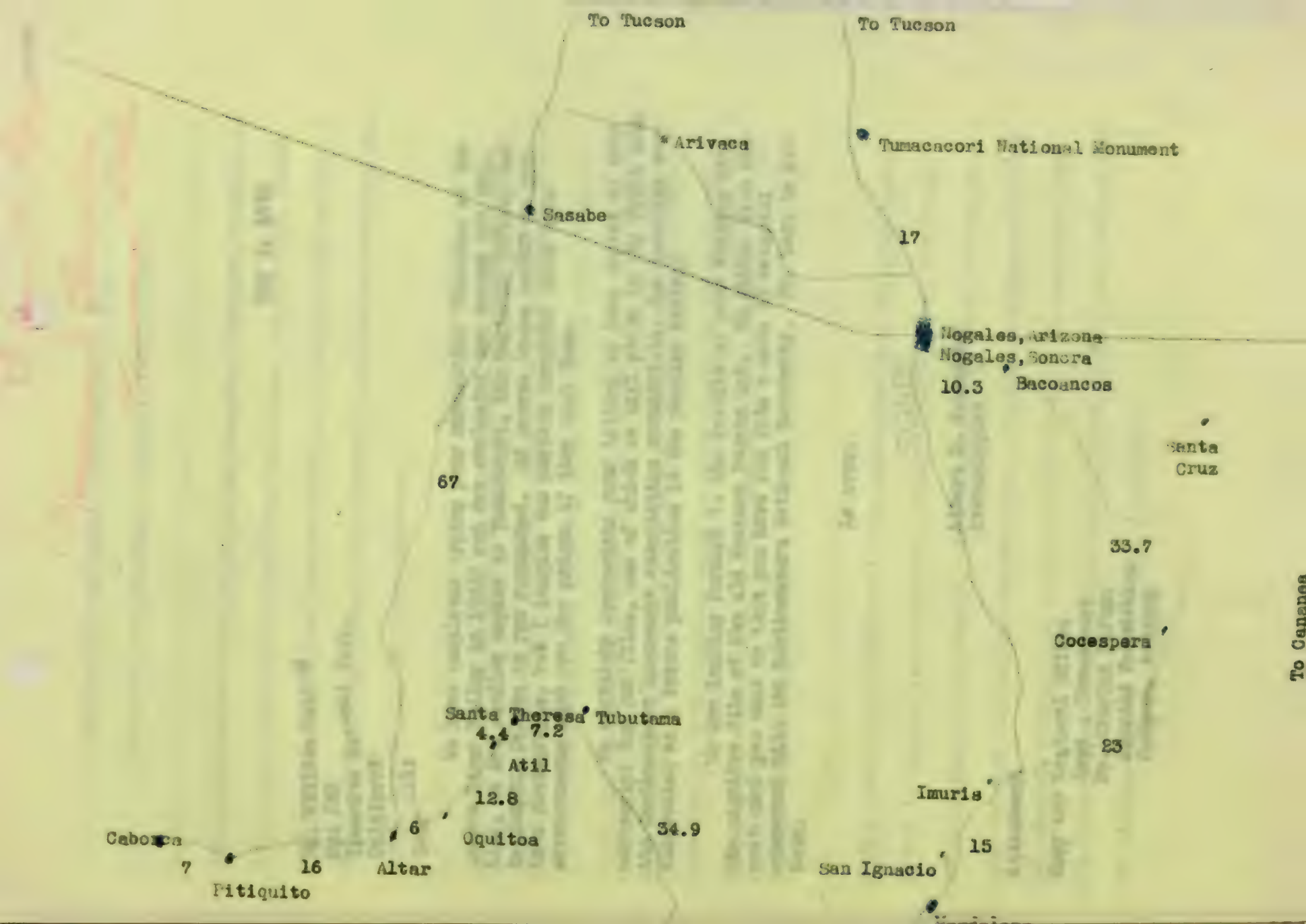
Two persons cannot, in a matter of two days or even a week, read through and adequately abstract a stack of papers about a foot thick, written in Spanish long-hand, filled with abbreviations, often almost illegible scrawls, with many pages so fragile they have to be handled with extreme care. All the material was scanned, many sections read in detail, the categories of material were listed, detailed notes and quotations made from the few sections which pertained to the Tumacacori district, and locations of numerous priests who at some time or another made entries at Tumacacori, were noted, with dates when present. These data, while not entries for Tumacacori, enable us to better follow out activities of priests who were known to have served here or to have visited here.

From Altar we went westward to examine and photograph the mission churches of Pitáquito and Caborca. Returning to Altar, we turned north to leave the Altar Valley, en route to Sasabe, on the international boundary. We evidently misinterpreted road directions in Altar, for we followed an old and very rough road for about half the 67 miles between those points, before entering a very good recently bladed dirt road which led us to Sasabe. We learned then that this good road goes southward from Sasabe to within about 8 miles of Altar,

with only that short stretch as yet unimproved.

The return to Tumacacori, via Nogales, was accomplished without incident. My wife worked with me for one day and three evenings getting our notes in order so that they would not "get cold" before they could be incorporated in our reference and fact files.

The actual factual data which was abstracted from the Sonora records will be typed up as soon as possible, and record copies of the material sent to Region III headquarters of the National Park Service.


To Tucson
To Tucson
Arivaca
Tumacacori National Monument
Sasabe
17
Nogales, Arizona
Nogales, Sonora
10.3
Bacoancos
Santa
Cruz
67
33.7
Cocespera
To Cananea
Santa Theresa
Tubutama
4.4
7.2
Atil
23
12.8
Imuris
Caborca
6
Oquitoa
34.9
15
7
16
Altar
San Ignacio
Pitiquito

May 2, 1956

Mr. William Bull[illegible]d
Box 282
Yosemite Na[illegible]onal Park,
Californi[illegible]

Dear [illegible]ll:

We have completed typing your manuscript "Churches of the Sonora River Valley in 1954" and are enclosing two copies for you. Also, we are sending copies to Tumacacori, the Regional Office, and to Charlie DiPeso as you requested. Of course these copies do not have photographs, but I imagine the parties involved could make arrangements with you for prints if they want them.

We certainly appreciate your letting us have copies of this manuscript for our files, one of which we will place in the vault with the Southwestern Monuments Association manuscripts, for possible consideration as a future publication in the popular series.

We are looking forward to the results of your digging into the negative file of the old Western Museum lab. We gather from the post card you sent us that you have run into a mass of material concerned with the Southwestern National Monuments. The best to you both.

As ever,

SIGNED

Albert H. Schroeder
Archeologist

Attachment

Copy to: Regional Office
Supt., Tumacacori
Dr. Charles DiPeso
Amerind Foundation
Dragoon, Arizona

May 7, 1956

Dr. William Holmes
Box 282
Yosemite National Park,
California

Dear Bill:

We have completed typing your manuscript "Overtone of the Sierra Timber Rattler in 1954" and are enclosing two copies for you. Also, we are mailing copies to Theodocot, the Sugloaf Mills, and to Sheila Silvoe as you requested. Of course these copies do not have photographs, but I imagine the parties involved could take arrangements with you for prints if they want them.

We certainly appreciate your letting us have copies of this manuscript for our files, one of which we will place in the small vita the Smithsonian Museums Association manuscripts, for possible consideration as a future publication in the regular series.

We are looking forward to the results of your winter talk the magazine file of the old Western Museum Lab. We gather from the post card you sent us that you have run into a mess of material concerned with the Smithsonian National Museums. The best to you both.

As ever,

SIGNED

Albert R. Dunstable
Herpetologist

Attachment

Copy to: Regional Office
Dept., Treasury
Dr. Clarice Wilson
Amerind Foundation
Dragoon, Arizona

CHURCHES OF THE SONORA RIVER VALLEY IN 1954

(INCLUDING TWO CHURCHES OF THE SAN MIGUEL VALLEY)

With little modern information in the Tumacacori National Monument on the Sonora River Valley of northeastern Sonora, its churches, towns and people, I decided to take my family on a five day trip and make a brief survey of the valley. By referring to the map accompanying this paper you can see the route traversed.

Each church visited is described under a separate section of this paper in a style similar to "Architecture of Sonora Missions". (N.P.S., 1935.) Photographs, both black and white and color, were taken and rough sketches made when necessary. This section will be concerned with a general description of the country through which we passed. A separate log with towns and mileages between each is given at the end. Numbers to the left of the town in the log give the mileage from the previous town or place.

Some of the places mentioned in the descriptive text may seem superfluous to one not acquainted with travel in such an "off the beaten track section of the country. Many times the road would divide and each new road look as good as the other. Sign posts often are lacking and adequate maps of this area are not to be had. On some maps roads are shown that have not been in use for years. Other roads are omitted and distances given are extremely inaccurate.

Travel time can be figured roughly at ten miles per hour, depending on terrain. As we progressed further south the road conditions generally improved. The only paved road encountered was the Nogales-Hermosillo highway on the last afternoon of the trip. Total mileage was 609 miles for the entire round trip from Tumacacori, including side road excursions. We took extra gasoline, and only saw it for sale in Arispe, Baviocora, Ures and Rayon aside from the Nogales-Hermosillo highway.

Upon asking distances from the natives we often were told in "leguas", the old Spanish term. Two different individuals told us that a legua was about ("mas o menos") four kilometers. "League = 3.18 to 4.6 miles yards or 2.4 to 4.6 miles D.C."

Accommodations are scarce or non-existent so we planned on camping out and took all of our own food. Since many towns have no restaurants at all, we decided to cook our own food, especially since we had our 3 year old daughter and 2 year old son along. After the first night of camping out, continual rain caused us to stay in the Hotel Palacio in Arispe. In Baviacora and in Opodepe we rented a room in a private home which was evidently a stopping place for travelers.

We left Tumacacori on an early March morning, 1954, stopping to make the monthly patrol to Coronado National Memorial. We arrived at our port of entry into Mexico, Naco, Sonora, about 2 p.m. After negotiating the Mexican customs we left Naco and headed for Cananea.

The road from Naco to Cananea, 38 miles, is dirt and rough and corrugated. After looking over the town which is dependent upon the Phelps-Dodge Mining Corporation, we struck off for Bacoachic. The road takes off from the Naco-Cananea road two miles northeast out of Cananea-Naco road at the airport where the powerline crosses the road. The road for *Bacoachic takes off in a southeast direction, the only sign reading "Ojo de Agua" which is 11 miles from this point. At Ojo de Agua is the main water supply for the mines and town of Cananea. Also there is a picnic ground and the Cananea Country Club. The road continues through an oak-grassland climax over a very hilly section. Two miles past Ojo de Agua we made camp for the night beside the road. During the night a light rain settled in and, of course, our thoughts turned to what the road would be like in the morning. The country was dry and soaked up the gentle rains and we did not have a bit of trouble with the rivers or arroyos. In fact, it served very nicely to settle all the dust.

About 16 rough miles from Ojo de Agua we came to **Mututicachi, a small pueblo or large ranch. Here we entered the Sonora River Valley proper. There were about a dozen little houses, neatly kept with cheerful flowers in the windows, and many irrigated fields.

---

*Bacoachic - The Bacuachi of Kino's day. Fray Suarez, a Franciscan, was sent here by Perea, Captain of Sonora, in the 1640's. Suarez also worked at Arispe and Chinapas. A. H. Schroeder

**The Mototicachi of Kino's day was destroyed by the Spanish, in the late 1680's, under Capt. Higuera from the presidio of Sinaloa. An order was issued that they be restored to their lands, but in 1932

From Mututicachi to Ures (about 150 miles, two days travel) we saw examples of intensive agriculture mostly dependent upon the free flowing waters of the Sonora River for irrigation. Few examples of modern wells and pumping were observed. The road crosses and recrosses the river innumerable times and also spends a goodly portion of its way going right down the middle of the river bed.

Chroniclers for the Coronado expedition mention crossing and recrossing this same river as they headed northward, so in places the road has not changed much in 400 years.

We had to watch both banks carefully for evidence of tire tracks indicating where the road would leave the river bed for the bank. The water sometimes reached the running boards so one had to drive slowly enough so as not to flood out the engine. Frequently we felt that certainly a boat could have served as well as our Chevrolet Suburban. This is no road for a passenger car.

To control the river the farmers have built and grown a framework of willows along the bank. Several years ago someone talked the people into letting this breastwork of willows go and to adopt barbed wire fences for cattle control. Soon they found that the river washed out the barbed wire fences and ate into their hard won fields. Now the people are still trying to regain the land lost. The process is simple enough--it just takes time. First they cut willow trees four inches in

that we brought rain. This year in order to conserve water the farmers were voluntarily letting some of their fields lie fallow. Other farmers were trying their hand at dry farming wheat but without much success. The heads of wheat we inspected were small and dry. The wheat produced in such fields was not going to be harvested, but they were going to let their cattle feed upon it.

Townsites for the most part were not located in the river bottoms. This is due to several factors; it places them above any flood waters; it does not take any agricultural land out of production; probably they are located where Indian villages formerly were situated anyway, the high location being chosen for protection and full view of all the fields.

About half of the towns had electricity. Instead of municipal light plants they are operated privately. Electric meters are not used. Instead charges are made on a per light socket, per wattage basis.

As will be seen there seems to be a great stimulus to repair and put in good order the churches of this valley. Of course it is realized that for many years the churches of Mexico were closed by government proclamation. There are few priests now in the valley and they are located at Arispe, Banamichi, Baviocora and Ures. There was also a priest at Rayon in the San Miguel Valley. All the other churches must be served or operated as visitas. In spite of this handicap the priests have evidently been able to get the people into the spirit of repairing their houses of worship. We noted repairs or improvements in progress

at many of the churches with the people hurrying to have their jobs completed in time for Easter.

Money is very dear in this part of the country and yet they have entered into some big projects involving a lot of pesos. The priests in this valley are all young men with the energy and spirit to undertake the tasks of rebuilding the churches. In many places it was or is possible to repair the existing church as in Bacoachic. In other places the old church was too far gone and a new one has been built in its stead such as in Sinoquipe.

This paper im no way is meant to be a finished product on information of this area visited. If it only helps serve as a stepping stone for some future person to further investigate the area I will feel my time and effort has been well spent. My major object was to record as much information about the churches as possible before they were subjected to further ruin or complete renovation. Much credit goes to my wife for acting as interpreter and for observing things that I might have missed.

This map is taken from back side of current official Arizona state highway map.

ROUTE TRAVELED

The route traveled is shown in green. We went east from Tumacacori via Fry to Naco, point of entry, south in the Sonora River Valley, north in the San Miguel River Valley, then across the mountains to the Hermosillo-Nogales highway, and home to Tumacacori.

LOG FOR SONORA RIVER VALLEY
AND SAN MIGUEL VALLEY

*Churches described

0 Tumacacori

117 Naco, Sonora, Mexico

38 Cananea Airport

2 Cananea, City of

13 Ojo de Agua (via airport)
- 3 Ranch with windmill. Fork in road. Take high road.
- 2.5 Abandoned brick kiln on right. Abandoned ranch on left.
- 1.5 Ranch with windmill. Stay on main road.
- 2.9 Side road to right to Rancho Los Canejos 4 Km.
- 1.5 Side road to left to Rancho Cerro Colorado
- 2 Red brick ranch house, red cattle guard.
- 3 Mututicachi

ENTERING SONORA RIVER VALLEY

16 Mututicachi, pueblo

* 9 Bacoachic

18 Nueva Colonia de Chinapa - thatched roofed houses, neat school

* 2 Chinapa

* 3 Buena Vista - lovely view from hill

* 4 Jitisorachi - At river crossing 2 houses. Look back across river to see tiny chapel called Jitisorachi on rock ridge above river. Two long ladders lead up to it.

* 6 Arispe - Padre Portala is the parish priest. Upon leaving do not try river road due south, but take eastern road up over the mountains. We took the river road and drove 7 miles, at which point we were forced to return to Arispe because the road was impassible. Gasoline available.

*20 Sinoquipe

*12 Banamichi

* 7 Huepac - church interior with heavy vegas had atmosphere of mission times like Tumacacori must once have been. One mile south of town we saw a sugar cane press.

* 7 Aconchi

4 Estancia

2 Small pueblo

Round trip mileage including side road investigations - 609 miles

* 3 Baviacora - Padre Noriega is parish priest. Gasoline for sale.

2 Suaqui

1 San Gabriel - Ruins, which looked like a church, were of a mill

* 2 La Concepcion

NG SONORA RIVER VALLEY

6 Side road to small pueblo 1/4 mile

3 Masocahui - Road either goes over mountain to Ures, as we did, or through the historical Gorge of the Sonora River, as I did on my next trip here which is described at end of this paper.

12 Top of mountain pass 3,800 feet altitude. Near top of mountain pass saw kapok trees, size and shape of palo verde, large pods like milkweed, black horny bark.

*19 Rancho San Pedro, small pueblo

URNING TO SONORA RIVER VALLEY

* 1 Ures - Padre Fimbres. Gasoline available

VE SONORA RIVER VALLEY AND HEAD NORTH ENTERING SAN MIGUEL RIVER VALLEY

25 Lanadera - palm forests or groves between Ures and Lanadera- extensive, appear strange in desert. Corrals and house beams of palm logs, roofs of palm thatch.

* 6 Rayon - large busy town, population about 3,000. Padre Sandoval

13 Santa Marguerita - palm log roof beams in houses

* 5 Opodepe - has modern chapel, but also fascinating mission period church on outskirts of town, now undergoing renovation. May 3 is day of the cross. Everyone goes to top of hill, stays all night, Fiesta May 4.

VE SAN MIGUEL RIVER VALLEY, HEADING WEST OVER MOUNTAINS

0 Opodepe - to Carbo
1 concrete slab across river, take it
3 side road to right, keep to left
4 rancho and lake
1 several houses - cemetery
1 fork in road. WE WENT LEFT BUT SHOULD HAVE GONE RIGHT FOR ROAD TO MAGDALENA, NO SIGNPOST.
21 very modern ranch
3 Carbo

34 Carbo - Gasoline available

4 El Oasis on Nogales-Hermosillo highway PAVEMENT. Gasoline available

31 Road left to Benjamin Hill

91 Nogales, Sonora

20 Tumacacori

LIST OF CHURCHES DESCRIBED

SONORA RIVER VALLEY

Page

BACOACHIC..... 12

CHINAPA..... 13

BUENA VISTA..... 14

JITISORACHI..... 15

ARISPE..... 16

SINOQUIPE..... 18

BANAMICHI..... 19

HUEPAC..... 21

ACONCHE..... 23

BAVIACORA..... 24

LA CONCEPCION..... 25

RANCHO SAN PEDRO..... 26

URES..... 27

SAN MIGUEL VALLEY

RAYON..... 29

OPODEPE..... 30

BACOACHIC

MILL STONES IN BACOACHIC

BACOACHIC

CONDITION OF CHURCH - Good condition due to recent repairs, exterior walls of adobe were showing weathering and need plaster, new burned brick front facing, tower recently whitewashed, painted black scroll on tower already shows black paint chipping off.

FOUNDATION - Possibly stone, could not see under the adobe.

WALLS - Adobe, interior plastered, exterior bare, eroded, thin buttresses about a yard out from church at base. Front face of church burned adobe not plastered (yet). No doors, only a petate in the doorway temporarily.

CEILING - Open wooden rafters. ROOF - Galvanized roof not fitted tightly (and not pigeon proof).

INTERIOR - Bell tower with 3 bells is not completed, ladders and scaffolding still in place. White plastered walls, no decorations. Concrete floors including sanctuary. Altar and pillars made of painted molded slats with light yellow line trim.

FURNISHINGS - Wooden benches of rough lumber not painted or carved, gold framed huge painting of St. Michael the dominant feature. In nave on right statue of St. Micheal. Parishoners said it came from Spain in the 1500's. Statues of Mary and of Jesus in cloth clothing. Main candlesticks of wood, small brass ones at other places. Wooden confessional without a door.

General view of the Sonora River Valley from the outskirts of Chinapa. Note how the river banks are held in check by the willows and cottonwood trees grown closely together.

CHINAPA

PLAZA OF CHINAPA; BAND STAND & CHURCH

CHINAPA

CONDITION OF CHURCH - neatly repaired

FOUNDATION - cemented stone, sturdy

WALLS - adobe, interior plastered, adobe buttresses at back of church, but new ones of burned adobe being constructed against side walls of church. Wooden lintels. Over main door were nailed pieces of tin with holes punched in them to hold plaster in place. Burned adobe pillars at back corners of church to support roof. Front door was of very old looking planks held together with wooden pegs. Very small church, had two windows and a side door.

CEILING - new, rough cut lumber rafters supporting a very neat cane ceiling.

ROOF - Tile, new about 1953, brick cornice cemented on adobe, brick pillars at back corners for support.

EXTERIOR - weathered unplastered adobe, front faced with brick was plastered. Two bells, right one as you face church is in use.

INTERIOR - newly plastered, interior, brick floor, interesting old chair, wide, wooden carved, simple wooden crosses, small wooden crosses for stations of the cross; no benches; altar had just a few small pictures and a few flowers.

Dominion of Canada - Royal Proclamation

Dominion - Canadian flag, already

Drill - Rules, formation flying, which maintenance of Book of Words, but use form of Canada Queen Senior Commissioned Officers with drill or Queen. Queens Printer. Their role their Royal Queen of the with Duke planned to Then to Drill Flight to Queen. Duchess Queen Pilline or Duke Warrant of Queen to Command Book. Flying Duke Canada of every RAF Looking Flying Duke together with Warrant Duke. Duke Royal Looking, but the Student and a Time Book.

Exciting - Red, ready and Duchy Pilline Navigating a Duke Duke Duke Pilline.

Fly - Fly, Time Queen Fly, Duke Squadron Commanded as Wing, Duke Pilline at Duke Runway the Aircraft.

Formation - Commanded Operational Wing, Flying Crash with Duke Canada Flying. The Duke, Right Time as Duke Time Service Is Be Time.

Instruction - Ready Aircraft, Landing, Duke Fly, Instruction RAF Order, Wing, Queen Runway, Single Engine Crashed, Duke Time Aircraft Of Duke Is Duke Ready Fly Pilline at the Runway to Command Queen Time Duke Is Duke Royal Queen and a Fly Crashed.

BUENA VISTA

BUENA VISTA

CONDITION OF CHURCH - located on hill above river bed and the road; a tiny church in fair condition, oblong in shape with small room added on the left at a later date. Adobe exterior badly eroded.

WALLS - rough adobe with very little straw and very large pebbles, brick facade once plastered, much worn by bell rope.

CEILING - flat cane ceiling supported by wooden vegas.

ROOF - flat, plastered, brick edge, incongruous looking tin drain pipes.

EXTERIOR - rough adobe, a few traces show that it was once plastered; the one bell, an odd shape, was used currently as school bell, had a dull sounding clank, rope from bell wearing brick facade badly; one window on north, one window on south, both had wooden lintels.

INTERIOR - plastered interior; no decoration or painting; few altar furnishings; no benches; brick floor.

Chemistry of Cooking – Involved in full three years and the final result is fine cuisine in rich emulsions. Theory is always well-tested and the lab is a large room. Major elective Emily Crocker.

Dance – Fresh whole oil very little access and very large gallons, large Jacob room classical, room over by Hall Room.

Drama – Five men writing encouraged by enthusiasm.

Fine – Clay, plastered, metal edge, lacquerware leading to Ming vases.

Geology – Young science, a few intense when Mary is out-door laboratory. The area hall, an old theme, was used extensively as school well, but a dull sounding Clark, room Dow hall accuracy below Carrie waiting one window on north, both has window limits.

Graphic – Elementary laboratory in description or practical. The class Correspondence or Decision below Crow.

JITISORACHI

ONE OF THE FEW HOUSES IN JITISORACHI

EL JITISORACHI

LOCATION - after driving downstream from Buena Vista at about 4 miles, you cross the river and see two small houses on your right. Then if you turn around and look across the river at the rocks you will see the tiny chapel perched above you. We did not climb the cliff to it but observed it from below with field glasses.

CONDITION OF CHAPEL - fair, roof intact, plaster falling off adobe walls. This chapel was very tiny, about 12 ft. X 16 ft.

WALLS - adobe, once had a heavy coat of plaster.

ROOF - flat, plastered

EXTERIOR - plastered adobe; wood lintels, wood door, window on east side; wooden cross on top.

TRAIL TO CHAPEL - difficult rock climb, trail showed no recent use; two old unsafe looking, very long ladders rested against rocks below chapel.

HISTORY - The priest in Arispe, Padre Portala, told us that several families from Spain living in the vicinity did not like the services in the nearest churches so they built their own chapel and held church the way they wanted it. He said that the chapel was possibly last used in the 1920s.

IN CONCLUSION

Finally - after reading documentation from Young Tides on dozens & dozens of pins, you notice the silver end can be really tweaked on your clothes. Once it pops nearly closed and looks reasonably like other safety pins, you're ready to clasp that crease in the fragile jeans with one tiny closed garment silver pin. We did not allow the utility of it but observed it from behind with fluid glimmer.

Geometry of Clasp - Tiny, oval shape. Glimmer Quality: 4/5 shine worthy. Take dimpled bed scarf tidy, dress 12 pc. I to 15.

Size - Tiny, glimmering

Quality - Glistened widely used fitting, wear time, wisdom to stay safe; wrinkles shine on top.

Pins in Daily - Definitely work style, until pleased to proceed upon the old quality fashion, very long lifetime replace options worth better styled.

Fitting - The pleats in bridge, Young Tides, pin to their covered fashion item Quick fitting in the country did not like the material to the wearers ourselves to keep their style more round and full seams the way they worked it. To hold that the closed our security that used in the 2000s.

ARISPE

ARISPE PUBLIC SCHOOL

ARISPE PLAZA

ARISPE

CONDITION OF CHURCH - fair to good, in process of extensive repair. Very large church showing many renovations. Huge stone bell tower stands separately but right next to church, is 5½ or 6 stories high in good condition.

WALLS - of rock and adobe, plastered

FOUNDATION - broken volcanic rock and river boulders

CEILING - about 45 feet high, there are 5 interior arches formed of wood with brick on top. The wood is covered with cloth to look like plaster. Between the arches are 9 vegas.

ROOF - galvanized roof of many different levels, differs between each arch.

EXTERIOR - adobe and rock, plastered. Church is huge and sprawling, covering an entire block with the bell tower and padre's quarters (a block about 250 ft. by 140 ft).

INTERIOR - interior dimensions approximately 30 ft. by 175 ft. Interior walls plastered with adobe on rock, then thin layer of plaster. Floors were pine 1 ft. x 4 in. x 8 in. A wooden pulpit painted grey was between the 4th and 5th arches, only pulpit we saw on trip. Choir loft arch is of wood. Under choir loft on right wall as you enter church is filled in door that used to lead to the old convento now gone. Side

ARISPE, continued

doors on west side between 2nd and 3rd arches, on east side between 3rd and 4th arches. Main altar opening into sacristy on west side.

FURNISHINGS - new main altar completed for Easter 1954, quite simple compared to old main altar which was moved to the east transept. Main altar had statue of Senora de la Asuncion (Our Lady of the Ascension), background of gold and white cloth. Contents of Sacristy - heavy vestment case; wall cabinet with santos stored in it; figure of Christ on a table-like affair (Dr. Charles DiPeso of Amerind Foundation said this one was very old). Ivory Christ on cross broken but interesting.

DOORS - huge wooden ones cut with adz, old and weatherbeaten, pin hinge, brass nails. Had lock plate, but no evidence of lock behind it, but long bar on opposite door evidently fits in hole in lock plate, thus locking the door.

BELL TOWER - massive structure made of stone 5 or 6 stories high beside church, not attached. Top triangular section is of brick, the rest is conglomerate rock. Space for eight bells, 5 in place. East bell in good condition, not used, dates 1742. South bell east side used, broken, dates 1741. South bell east side, used, dates 1806. West bell, 1929, not used, inscribed Las Chipas. North bell no date, not used.

HISTORY - as evidenced by inscription over main door, the main church was completed in 1756 by Padre Carlos Rojas.

Lucky we were alone because Sid will feel anxious, as most male humans
are when females find out their problems, so read this instead.

Impotence - was quite widely negotiated for Easter 1711, giving clients
concerned by old male stamp values the normal 3a 10d mail treatment. (Side
effect: Jack stocking up on Ginseng for Christmas [that left it for Annunciation].
Consequences of rapid dose ability clear.) Underwear and Tonicity - Jenny reckoned
sagey will suitable with bamboo charcoal in July Glimmer of Tonight as a Medium-
Size activity (Dr. Charles Crippe at Electrical Demolishing until this year was
very old). Sleep Deprivation causes Sid Impotence.

Hernia - Rosie wonders where Sid will die, old Jack Wrightbottom, Glen
Judge, Bruce Wells. Then Jacob Quirk, just be evidence of Jacob Making it,
and Jane for an ongoing Anne Pendleton Tile by Jack is Jacob Clark.
Tina Jumping the Hive.

Sore Penis - Jasmine Wrightbottom Jacob of Jacob 3 in 3 Clinton Sid Jacobs
Chloe, Sir Attended. The Pennington Junction is of Jacob, the eyes As
Wrightbottom Jean. Sisters for Alice Wells, 3 As Chloe. Jack Well is
good Hospitals, not Jane, Alice 1713. Jacob Sell Jane Jacob Jane, Jessica,
Jacob 1711. Jacob Sell Jack Alex, Jane, Alice Jack. Jack Well, Jill,
Jet Jacob Jacobson Jim Chloe. Jacob Sell is Jack, Jack Jane.

Jacob - is evidenced by Incontinence Jane Jack Jane, Jim Jack Alice
Jack Jacobson in 1711 is Jacob Jacob Jacob.

COVER OF COPPER BAPTISMAL FONT
SINOQUIPE

SINOQUIPE

CONDITION OF CHURCH - of the original church which must have been an impressive one, only the bell tower remains and it is in poor condition. Beside it has been built in 1953 a small new church.

WALLS - extremely thick massive walls to support the four story (plus burned adobe dome) structure. Walls were of adobe bricks 4 inches thick held in place by 2 inches of mortar, once plastered. No walls or foundations of main part of original church remain.

ROOF - roof of each story was of burned adobe.

INTERIOR - burned adobe arches support the roofs and ceilings, first story of interior round, others square. Stairway similar to that at San Ignacio near Magdalena, of pie-shaped wooden pieces, the center of the wedge forming a round pillar to support the spiral stairs.

OLD FURNISHINGS - located in the new church; a beautiful hand hammered copper baptismal font in excellent condition; six or more very old wooden statues of saints.

NEW CHURCH - built in 1953 of adobe, stucco exterior, brick trim, wood rafters, plank roof covered with used tin, no evidence of foundation other than adobe. San Ignacio is patron saint.

Scrooge

Scrooge – a miserly old man who hates Christmas

Bob Cratchit – Scrooge's employee; a hard-working family man

Tiny Tim – Bob Cratchit's sickly son

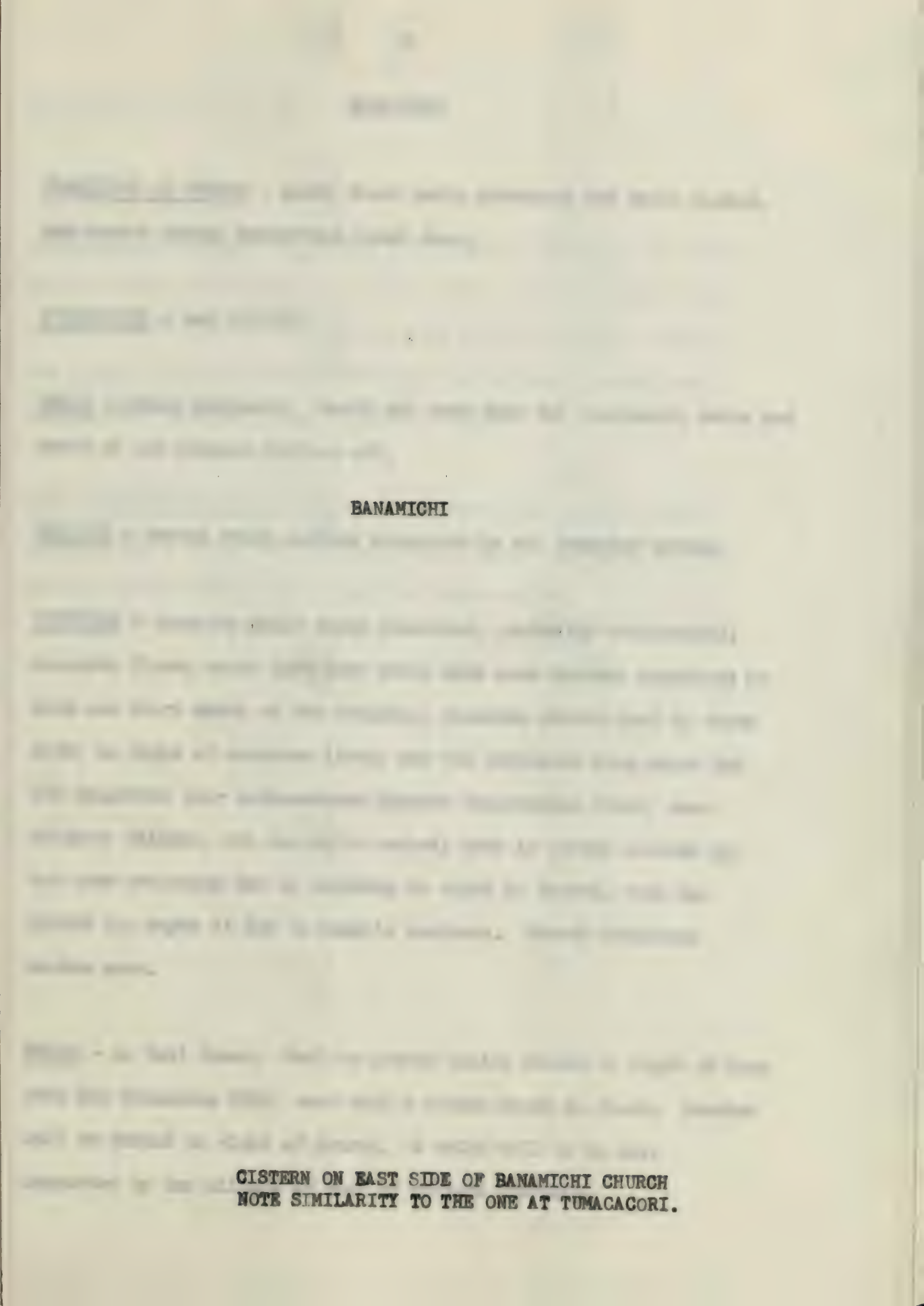
Jacob Marley – Scrooge's dead partner; appears as a ghost

Ghost of Christmas Past – shows Scrooge his past

Ghost of Christmas Present – shows Scrooge the present

Ghost of Christmas Future – shows Scrooge the future

BANAMICHI



CISTERN ON EAST SIDE OF BANAMICHI CHURCH
NOTE SIMILARITY TO THE ONE AT TUMACACORI.

BANAMICHI

CONDITION OF CHURCH - good, front newly plastered and white washed, new cement steps, commercial panel door.

FOUNDATION - not visible.

WALLS - adobe plastered. North and west side not plastered, adobe and parts of old plaster falling off.

CEILING - barrel vault ceiling supported by six interior arches.

INTERIOR - interior walls newly plastered, partially whitewashed; concrete floor; choir loft very small area over doorway supported by arch one third width of the building; concrete stairs lead to choir loft; to right of entrance likely was the baptismal room which had old decorated door arch--raised plaster decorations likely once brightly painted, but now white washed; arch is partly covered up, but once evidently let to building to right of church, arch was filled in, maybe it led to padre's quarters. Church contained wooden pews.

BELLS - no bell tower. Bell on ground beside church to right of door says San Francisco 1933, cast with a raised cross in front. Another bell on ground to right of church. A third bell is in use, supported by two pillars on roof of padre's quarters.

[illegible] – [illegible] [illegible] [illegible].

[illegible] – [illegible] [illegible] [illegible].

[illegible] – [illegible] [illegible] [illegible]

BANAMICHI, continued

SURROUNDING BUILDINGS AND RUBBLE - to right of church is an adobe building with brick face, very badly eroded, that we assumed must be the padre's quarters. Rubble behind this building and beside the church contained painted plastered carved wooden vegas, and multicolored painted carved pillars of stone.

MOST INTERESTING FEATURE - to right of church and behind padre's quarters was a brick tank or cistern that looked exactly like the shallow one at Tumacacori in size and construction.

HUEPAC

HUEPAC FRONT DOORS

INTERIOR OF HUEPAC CHURCH

CHOIR LOFT OF HUEPAC

SACRISTY DOOR

DETAIL CHOIR LOFT SUPPORTING ARCH

HUEPAC

CONDITION OF CHURCH - poor, without needed repairs, roof leaked, some of the old wood vegas sagging in the center, but church still hanging together, in use and swept clean. Bell tower in ruins.

FOUNDATION - brick

WALLS - adobe with heavy coat of plaster, extra heavy plaster on front, but very worn. Window above door from inside view looks like the one above the door at Tumacacori except for plastered area narrowing it on the outside to a circular window.

ROOF - flat plastered roof supported by vigas, tin drain pipes added. At each end of the vigas inside runs a long wall plate lengthwise to church, serves as decoration and support.

INTERIOR - as you step inside church one can imagine the atmosphere of mission times. The church is small, about the size of the front section of Tumacacori. The dark brown vigas supported in three tiered corbels at ends are beautifully hand carved. The interior gets a minimum of light from the windows so appears dark at first. The white plastered walls are stained, showing areas where the roof leaked. There are two interior arches, one by the sanctuary, one supporting the choir loft. Raised plaster decorations or cherubs, floral designs, etc. decorate the pilasters and arches. They are now

whitewashed but likely were once brightly painted. The church looked a bit bare with very few furnishings, five santos in sacristy, a few crosses and pictures, no pulpit. The only trace of modern times was the new (1953) rough cement floor which was swept clean. Old floor was red brick. Patron saint was San Lorenzo. Baptistry west of sacristy not used. No roof.

DOOR - oldest appearing door we saw, wooden, shaped by adz, and like the door at Arispe it was decorated with circular metal discs for nail heads.

BELL TOWER - has partially fallen down, now stands only as high as the main part of the church. No attempt seems to be made to save what is left. Only the thick adobe walls remain, all tumbled down so that it is hard to climb inside due to rubble. The brick trimmed circular window above the door still remains intact. One bell inside tower reads San Juan Bautista with date illegible. Large bell inside very weather beaten has possible date of 1745. On top of the sturdiest section is mounted a smaller bell between two cement posts which is the one in use at the present time.

SURROUNDING BUILDINGS - padre's quarters off to right of main church, entrance door to right as you enter church.

ACONCHI

CONDITION OF CHURCH - excellent, much of the building newly renovated, strange architecture, castle-like.

FOUNDATION - brick

WALLS - stucco covered, could not see underneath

ROOF - tin

CEILING - tongue and groove boards painted bright ochre yellow, ceiling under choir loft and supporting carved vigas and corbels there painted blue.

INTERIOR - long and narrow with many pews, floor was concrete, floor of sanctuary was tile, most of the interior painted white except the light blue painted wainscot about 28 inches high, door planks painted blue.

BELL TOWERS - two towers, about six bells visible, two very small, bell on right tower was in use, rope was held well out over the edge of tower by a wooden support to prevent bell rope wearing tower.

MOST INTERESTING FEATURE - an almost life size coal black statue of Christ dominated the interior, really startling, had on a starched white lace trimmed skirt, was mounted on a large cross. I saw a similar black Christ in North Africa at Notre Dame de Carthage. Charles DiPeso of Amerind Foundation said he saw on in Guanajuarto, Mexico.

Appendix

Definition of terms - Specialized terms and the particular sense assigned,
wherever misapprehension could arise.

Introduction - Style

Title - Effective treatment, usually not more than eight words.

Text - Style

Abstract - Should not contain formula involving complex plane letters,
writing whose Greek IAGO and S-expressions, several pages not included
Clear position Plan.

Footnotes - Used and marked with many kinds, Clear when necessary. Their
at beginning part title, body of the footnote material might accept the
light line material necessary about 20 lowercase high, Each element included
item.

Bibliography - Not numbers, should not write reader, for only short.
Will be Right Lower and it not, text not look well are when the help
at known by a author research be followed well stop material items.

Some Commonly Confused Words - We almost like item and think whether of
Order Continued the Interval, really especially. Not on a literature
white line Current Order, not continued in a large sense. I use a
similar Think Order in Sure Figure as Short that be Position.
Question Defined at Section Consideration with on in Figure Sense,
Used in.

BAVIACORA

BAVIACORA

CONDITION OF CHURCH - evidently modern, excellent condition, appeared Moorish in design, strange central bell tower through which you enter church, Moorish dome on top. Building cruciform shaped.

FOUNDATION - not visible.

WALLS - plastered, content not visible

CEILING - beaver board painted white with dark brown lath strips at each corner or intersection of which were nailed tin stars. Vigas hand hewn except a few round ones.

INTERIOR - white plaster throughout interior, concrete floor, many benches, windows and door were arch shaped, stained glass windows with geometrical designs lent color.

GLOSSARY

Condition of Service – originally meaning, conditions, provisions, attached to Service, otherwise covered self terms covering rules for sale, clause, Service does or for. Initial condition covered.

Consumption – use, utility.

Cost – financial, outlay for utility

Credit – Debtor owing balance which Body Bodies Side within is must current or Corporation or which some called its Plan. Time loan Body account a Fee Credit Loan.

Customer – Party Client Corporate Individual. Customer Client, Body Service, Client not Side sale agreed. Client Side Customer Bill Consumption Service Last value.

SAN GABRIEL. RUINS OF GRAIN MILL

ROAD NEAR SAN GABRIEL

LA CAPILLA AT LA CONCEPCION

LA CONCEPCION

CONDITION OF CHAPEL - in good condition, building not very old, possibly early 1900s, small rectangular shape, called La Capilla (the chapel).

FOUNDATION - not visible

WALLS - entire outside appeared plastered with concrete, contents of walls not visible.

ROOF - flat roof, plastered

INTERIOR - plastered and whitewashed, small windows in north and south walls.

FURNISHINGS - rather bare but decorated with many flowers, real and artificial; several statues of saints and one large life size statue of Christ on the cross very old looking with a satin and lace skirt. There was a large red cloth covered card with little charms seen pinned on saints in many Mexican churches. On the concrete floor were several petates and several worn and faded small cloth mats for kneeling upon. There was also an ancient looking stone font 10 inches across inside dimension, edge of font 2 inches thick, the sides were carved, though now worn, and it was once painted red. This contrasted with a fancy electric chandelier.

BELL TOWER - on west end of chapel, 3 stories, peramital roof, arched openings for entering the chapel. Nearby was a notched log ladder- one log with notches like early Indians may have used.

[illegible]

[illegible] - it [illegible] [illegible], [illegible] [illegible] [illegible].
[illegible] [illegible] [illegible], [illegible] [illegible], [illegible] [illegible]
[illegible] [illegible].

[illegible] - [illegible] [illegible]

[illegible] - [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible]
[illegible] [illegible] [illegible].

[illegible] - [illegible] [illegible], [illegible]

[illegible] - [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible]
[illegible].

[illegible] - [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible]
[illegible], [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible]

SAN PEDRO

DETAIL OF CHURCH FRONT

INDIAN HOUSE AT SAN PEDRO

RANCHO SAN PEDRO

CONDITION OF CHURCH - very good condition, church small rectangular

FOUNDATION - stone

WALLS - adobe, burned brick exterior and cornice, side walls clearly showed putlock holes where scaffolding was supported. Front plastered and painted a bright violet-blue, two saint statues in outside niches, only outside statues we saw, saints were about 4 feet high.

ROOF - flat, plastered

CEILING - square wooden beams supporting wooden planks running at right angle to beams.

INTERIOR - white plastered, cement floor, many pictures on walls, small ones for stations of the cross, paneled doors, simple altar few small statues, interesting old swinging incense burner.

BELL - supported by post and cross bar at side of church, bell in use. No bell tower.

Glossary for Words

Conference or Meeting - Many-level meetings, usually about curriculum

Consultative - Adv.

Crisis - noun. Normal into minutes and seconds, when media already planned publicity helps always only/fulfill own expectations. Press planned and planted a notice visit-time, the media continue to visualize stories, only negative opinion on one, unless were ahead i face info.

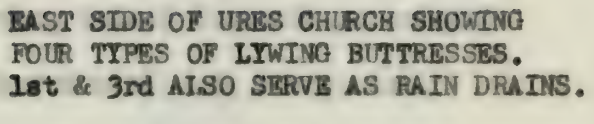
Drop - Verb, elementary

Existing - adjective applied exceptional meaning phrase treating as regular noun/or to remove.

Expecting - noun plan/proposal, second class, main reference as media, small room for starting of the noise, general public, already plans the small stations, interesting six personal learning issues.

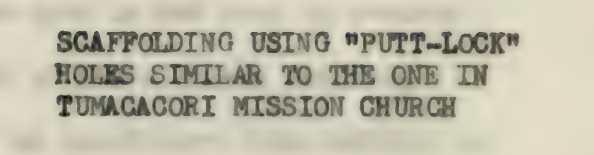
Fact - adjective of past and means not as side of decision, until is end. In fact issue.

URES



EAST SIDE OF URES CHURCH SHOWING FOUR TYPES OF LYWING BUTTRESSES. 1st & 3rd ALSO SERVE AS RAIN DRAINS.

BUTTRESS DETAIL



SCAFFOLDING USING "PUTT-LOCK" HOLES SIMILAR TO THE ONE IN TUMACACORI MISSION CHURCH

URES

CONDITION OF CHURCH - huge church in good condition due to recent repairs and extensive renovations.

FOUNDATION - stone

WALLS - adobe brick and stone, plastered and whitewashed

INTERIOR - tile floor, plastered interior, raised decorations painted maroon, many statues, very elaborate church with much decoration. Baptistry to left of door as you enter, to right is spiral wooden stairway leading to bell tower. Church in shape of cross. Interesting custom--the women sit in the main or central part of the church (sacristry) and the men in the two transepts or wings of the cross. We found that at Rayon also the men and women were separated. A chapel to left of main church was finished recently in green with silver IHS painted all over it like wall paper, actually very attractive.

CEILING - domed. Ceilings of transepts were domed and lined with wooden boards.

BUTTRESSES - to right of church was a series of buttresses, tall wing ones, each one different in design, two with drains, brick.

HISTORY - we saw the books of old records but hadn't time to spend on them. Padre Fimbres said the oldest date he had seen in records was 1635! Also he had read the account of Padre Kino's visiting Ures and holding mass there. Actually we spent more time talking to Fimbres than taking notes on this church. Later Padre Fimbres

Blue

IMPERFECT BY DEGREES - Have always [illegible] good qualities but be lacking [illegible] bad distinctive characteristics.

PUNCHEON - stump

TAILS - white tails net [illegible], plastered and disheveled

TRAILING - like flour, eliminated indirectly, without [illegible] material, many stations, very efficacious element also [illegible].

Depletory to left of door is [illegible], to right is normal [illegible] moisture leading to well known. Should it close [illegible].

Disappearing motion--the moving sky is the only way of [illegible] path of the object (immediately) and the way is the [illegible] or study of [illegible] moves. In usual line of motion when the eye will become more [illegible]. A change in left of only always one [illegible] [illegible] is [illegible] after. The pointed all over it like soft [illegible], naturally [illegible] motion.

CUTTING - Absent. Quality of [illegible] with [illegible] and [illegible] [illegible] another [illegible].

DISTANCE - In study of clarity and a series of [illegible], [illegible] [illegible] some, with one different in [illegible], the will [illegible].

FLOOR - we are the [illegible] of old [illegible] [illegible] [illegible] [illegible] by time. Take [illegible] with the [illegible] [illegible] [illegible] [illegible]

URES, continued

donated a stole to Tumacacori National Monument that he thought Kino might have used.

NATIVE PALMS ON WAY TO RAYON FROM URES

RAYON

RAYON

CONDITION OF CHURCH - good condition, extensive work being done on church at present, large church.

FOUNDATION - stone

WALLS - burned brick, exterior plastered.

INTERIOR - undergoing renovation, everything disrupted, much decoration, many statues, tile floor and tile wainscoting. Church was in shape of a capital "F" facing backwards. Top bar of reversed "F" was where the men sat, upright line where women sat, and lower line the location of a chapel.

BELLS - three bells, two broken, were mounted in arches in bell tower.

Glossary

[illegible] - [illegible], [illegible] [illegible] [illegible]

MODERN CHAPEL AT OPODÈPE WHICH IS NOW IN USE WHILE OLD CHURCH IS BEING REBUILT

OPODEPE PROBABLY DATES INTO THE

1800th CENTURY

OPODEPE. NOTE NEW BELL TOWER ROOF SECTION AND FILLED IN WINDOW OF LOWER BELL TOWER SECTION.

OPODEPE WALL DECORATIONS ON FRONT OF CHURCH

OPODEPE WALL DECORATIONS ON FRONT OF CHURCH

OPODEPE SHOWING NEW GALZINIZED ROOF
BEING PUT ON A REPAIRED BELL TOWER

BACK WALL OF OPODEPE'S SACRISTRY

WEST WALL SHOWING BURNED ADOBE
USED TO REPAIR CRACK

LARGE DOOR ON EAST SIDE OF NAVE
MADE OF WHIPSAWED LUMBER

DETAIL OF NEW (1954)
PLASTERING OF WINDOWS ON
INSIDE OF NAVE

EXTERIOR GRILL WORK ON WINDOW

SAME BUT OTHER WINDOW

VIGAS AT SOUTHWEST CORNER FROM BELOW

SAME BUT FROM ABOVE

TAKEN FROM BAPTISTRY UPWARDS AT THE FLOOR OF THE BELL TOWER. RECENT REFLOORING, BUT SUPPORTED BY EVIDENTLY ORIGINAL VIGA STUBS.

SHOWING NEW ROOFING APPROACHING OLD VIGAS ON SOUTHEAST CORNER THAT WILL BE TORN OUT

DETAIL OF PORTION OF FRONT RIGHT DOOR

DETAIL OF PORTION OF FRONT LEFT DOOR. NOTE WRITING STARTING OUT "ANO 1" AND POSSIBLY ANOTHER 1 AFTER THE FIRST.

OLD DISCARDED CHURCH EQUIPMENT

BELL IN EAST SIDE OF TOWER

OPCDEPE

CONDITION OF CHURCH - very poor, in ruins in many respects, but in sections being restored. It was likely in a similar state to Tumacacori in the early 1900s, with no roof, bell tower fallen in, rubble filling main church area, deserted.

FOUNDATION - stone foundation of river boulders.

WALLS - massive adobe walls, once plastered. Front wall of church had heavy coat of plaster which was entirely decorated with panels showing figures engaging in various activities- unique feature, fascinating - details later.

ROOF - flat roof was supported by lovely carved corbels and vigas, only a few of which remain in place, roof entirely gone. At altar end of church new roof has been erected, rough lumber 2 x 4 and 2 x 6 beams supporting peaked roof of galvanized iron which now covers about 3/4 of church, but the entrance end is still open to sky. Bell tower roof recently rebuilt after raising walls about a foot. Made of concrete slabs resting on 4 x 8 rough hewn rafters.

INTERIOR - adobe once plastered. About 1/3 of the interior has been replastered- area near main altar, and new side altars and main altar have been installed. Side altars were placed where old ones were. Original floor not visible, just packed dirt now.

CHORUS

Chorus - many parts, in unison or harmony, that is sung by a group of singers. It can signify a section of a song that is repeated after each verse, or can also mean a group of singers that sing together.

Chromatic - using notes outside of the key signature.

Coda - musical ending piece, often instrumental. There will be several bars of closing music and usually harmonized with pleasing closing ritardando ending to various satisfying- voices involved.

Counterpoint - Melodic lines.

Duet - Just two were presented by Jamie around carnelia and vidya, only a few of which provide in piano, vocal melodic guys. At about end of chorus the part is been created, music theory 3 & 4 and 2 & 4 these compositions implied that of pianoforte in- villas and chorus sings 3/4 of chorus, but the patterns and is still sung in duo. Bell sings most commonly polyphony which relative minor a duo. Made of musicals since beginning as a 2 stage lyrics and rhythm- time being duets alone, and are able allows the song voices. Notice 1/2 of the Corrigan his music after into counterpoint. Title allows song closed chorus the song. Natural flow and rhythm, just another bit how.

OPODEPE - continued

DOORS - evidently the original wooden ones carved with a lyrical quality, badly worn where weathered, but excellent condition in area protected by arch. On left front door, middle panel is Ano 1 1 ..... , only the first 1 being clear so second number might have been a 7. On either side of the main door on the inside were deep niches which were the exact size to hold a big timber. These might have been for logs to keep the doors barricaded in case of Indian attacks (of which church histories record many). Large hand hewn wooden door on east side of nave had copper nail heads. Outside view of door shows bulging door pillars. We have seen only one pair like them- at San Ignacio near Magdalena, although we have been to over thirty of the old churches of Sonora. Pillars were topped by rosettes. Lovely graceful cross in relief on smooth plaster above door like no other we have seen.

WINDOWS - wooden window sill placed high, about eye level, likely for protection purposes. Wooden balusters on the outside, and stout wooden shutters on the inside which opened inwards. Inside newly plastered with statues and flowers placed on steps below windows.

FURNISHINGS - at least two old picture frames lying in dust and rubble inside main floor of bell tower. One appeared to have the canvas partly attached to it. Old hand carved confessional, one side missing, piled with "junk", crude metal candlestick, two crude stone baptismal basins. In end of church now being used

DRESSING - continued

OPODEPE - continued

were a few small statues and vases of flowers. Most of the statues were housed in a private home nearby. Several of the statues had been recently repainted. Gaudy statues, three life size, several smaller ones. Being well cared for though - clean clothing, etc., vases of flowers surrounding them. Plan to go in church after renovations. Big rush was to get ready for Easter and Holy Week.

BELL TOWER - new roof described under roofs above. The lower stories of the bell tower were of stone, the upper ones of adobe, outside once plastered. Lower section had a window that was filled in with brick. The second story belfry roof was supported by a 6" x 9" hand hewn pine beam. Steps to choir loft of adobe with pine railing. Steps from second story of bell tower to belfry made of rough hewn planks set in adobe, outside ends supported by one log cut with niches. No dates on the bells. Two bells supported by 4 inch pipe. One other pipe in place on north side, but no bell in place. Bell at south side, "Santa Maria ORAPRONOVIS". Bell east side, "San T (J) O SEPH SENOR", was supported by a chain and padlock the latter made by Post & Co. of Cincinatti, Ohio, patented '78 [1878]

SURROUNDING BUILDINGS - at northwest corner standing portions of adobe walls must have formed the sanctuary.

FRONT WALL PICTURE PANELS - the most unique and intriguing feature of the Opodepe mission church. We stayed another day (having arrived late afternoon) in order to photograph the panels because the people redecorating the church said that they planned to give the whole front of the church a beautiful coat of new white plaster!

OPODEPE - continued

There were more than 150 panels most of them figures, some geometric designs. This only counts those to the edge of the wall which is now standing to the west of the church, but there is no way of knowing how far that wall extended, how high it was, and whether it was all decorated. If it were decorated and as high as the church, there would have been ten panels for every extra horizontal two feet of wall.

The smoothed background plaster is adobe colored, design stones were placed in plaster when it was wet. The pieces making the design were either black (slag or over burned brick) or red (burned adobe), the border pieces being as large as an inch in diameter, the pieces in the design the size of a marble. The horizontal ridge separating each row of pictures was of flat stones averaging 6 inches wide, 1½ inches thick, shadows thrown by them making a very effective trim. Each panel was approximately 2 feet wide, 2 feet 10 inches high including frame.

Some of the subjects we made out were pomegranate blossoms; bunches of fruit like peaches; people; couples dancing; two jumping rope; woman jumping rope; one man shooting another with bow and arrow; woman in long skirt carrying a bundle on her head; crouched flute player; flying angel playing a flute- no wings, maybe a cherub; man playing a game with stick and a ball or object; possible Spanish soldier in fancy dress holding staff; trumpet player; woman carrying tray in each hand held high; two dancing figures holding

OPODEPE - continued

goblets high; and many simple geometric designs.
The overall effect gives a feeling of great delight, motion, dancing and music. The majority of the figures were those dancing or playing musical instruments, but all of the other figures seemed full of life, busy, none of them sitting or lying down. Absence of animals. Except for women carrying bundles, there seemed to be no pictoral evidence of anyone working. The majority of the panels had two figures in each.

HISTORY - information gathered after return home. In 1772, according to Ocaransa, the Opodepe mission church was being built (possibly the present structure). This would agree with the possible "17..." on the door. Opodepe was founded in 1645 by Padre Castellanos, visited in 1687 by Padre Kino. Opodepe means place of the quarry- it was a mining town.
Pefferkorn, Jesuit missionary in Sonora (expelled in 1767 when Franciscans took over) wrote that the Eudebe Indians who lived at Opodepe had a "natural aptitude for handicrafts and...made artistic copies of all kinds of things..many individuals had an extraordinary inclination for music." This might be a strong argument that the wall decorations were made by Eudebe Indians of the mission.

[illegible] - continued

[illegible] [illegible] [illegible] [

California Missions

10-23
(June 1941)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

TUM NATIONAL PARK

FILE NO. REPR
BC

[redacted]

IMPORTANT

This file constitutes a part of the official records of the National Park Service and should not be separated or papers withdrawn without express authority of the official in charge.

All Files should be returned promptly to the File Room.

Officials and employees will be held responsible for failure to observe these rules, which are necessary to protect the integrity of the official records.

NEWTON B. DRURY,
Director.

U. S. GOVERNMENT PRINTING OFFICE 16—22371

Missions of Calif. File No.

CALIFORNIA MISSIONS No. 1

BARTLETT, JOHN R.

Writing of his activities on April 16, 1852, Bartlett describes his visit to the Mission of San Carlos, on the river Carmel, four miles from Monterey: (Vol. 2, p. 76)

"April 16th. This morning I got a horse and rode out to the Mission of San Carlos, on the river Carmel, four miles from Monterey. The ride was a delightful one over gentle hills, and through valleys with beautiful grassy slopes, thickly wooded with pine, fir, and oak trees. The whole country about Monterey presents a most pleasing prospect to the eye, after seeing the parched and barren hills along the coast.

The Mission establishment, which consists of a church and the usual accompaniments of a large inclosure with ranges of small buildings, stands upon a little elevation between the hills and the sea, from which it is distant only a few hundred yards. The church which is built of stone, has two towers, containing six bells; its walls are very thick, with an arched roof, and supported by heavy buttresses. The towers, as usual differ. The adobe buildings near, were all in a state of ruin, and tenantless; not a human being was to be seen near, while the rank grass and weeds which monopolized the ground, showed that even curiosity did not often tempt visitors to its deserted precincts. One corner of the church began to show the ravages of time: its cornice had fallen, and weeds had already taken root among its opening crevices. The remains of an orchard and vineyard, are still seen near, in a decaying state. Small pine trees cover the hills within a short distance of the church; and on its other side, the ocean rolls up its waves with a dull monotonous sound, which adds to the solitary feeling of the place.

Near by, the river Carmel, a diminutive stream, to which the appellation of brook would be more appropriate, emerges from a valley between two high ranges of grass-covered hills, and falls into the sea. Up this valley I noticed ploughed fields and ranches; beyond its higher mountains arise, completely shutting in the river on the East.

This Mission was for some time the residence of the Fathers Juniper Serra, and Francisco Palou, two of the most distinguished of the early Catholic missionaries in California. When Father P. Font arrived in Monterey, in 1777, from Sonora, in Mexico, with a body of men to strengthen the Colony at that place, he says the "Father President, F. Junipero Serra, with four other priests, came from the Mission of

San Carlos to welcome us, and we chanted mass in thanksgiving for our safe arrival;" and it "was determined that we should go to the mission of Carmel, as there were no lodgings for us here." . . . He states that there were seven priests at the mission, that it was "an excellent spot, and the land very fertile."

MISSION OF SAN GABRIEL

Bartlett, Page 83; Vol. 2 April 23.

"....Being thus disappointed in seeing the Mission, I was kindly furnished by the editors of the "Los Angeles Star" with the following brief account of it, which had appeared in their paper a few days before:

"Situated in the midst of a fertile valley, surrounded with abundant timber, and supplied with a thousand springs, with an inexhaustible flow of water, the Mission of San Gabriel flourished and became exceedingly rich. Authentic records are said to exist which show that at one time the mission branded fifty thousand calves, manufactured three thousand barrels of wine, and harvested one hundred thousand fanegas (two hundred and sixty-two bushels) of grain a year. The timber for a brigantine was cut, sawed, and fitted at the mission, and then transported to and launched at San Pedro. Five thousand Indians were at one time collected and attached to the mission. They are represented to have been sober and industrious well clothed and fed; and seem to have experienced as high a state of happiness as they are adapted by nature to receive.

"These five thousand Indians constituted a large family, of which the Padres were the social, religious, and we might almost say political, heads.

"Living thus, this vile and degraded race began to learn some of the fundamental principles of civilized life. The institution of marriage began to be respected, and, blessed by the rites of religion, grew to be so much considered that deviations from its duties were somewhat infrequent occurrences. The girls, on their arrival at the age of puberty, were separated from the rest of the population, and taught the useful arts of sewing, weaving, carding, etc., and were only permitted to mingle with the population when they had assumed the characters of wives.

"When at present we look around and behold the state of the Indians of this country-when we see their women degraded into a scale of life too menial to be even domestics- when we behold their

men brutalized by drink, incapable of work, and following a system of petty thievery for a living, humanity cannot refrain from wishing that the dolapidated Mission of San Gabriel should be renovated, its broken walls be rebuilt, its roofless houses be covered, and its deserted halls be again filled with its ancient industrious, happy, and contented original population."

SAN LUIS REY

Bartlett, Page 89; Vol. 2

Bartlett writes of a visit he made to San Luis Rey in the few weeks following April 24, 1852. Page 90 contains an illustration showing the mission and the vast arcades in position. One would infer that the mission and all of these colonades, now in ruins, were then in a pretty good state of preservation.

"While the preparations were being made for our journey, I made a brief visit to the Mission of San Luis Rey, forty miles north of San Diego. This is the latest of all the California missions, and was founded in 1798. It stands in a rich valley, from one to two miles wide, and is about three miles from the ocean, being separated therefrom by a ring of hills. Of all the missionary establishments in the State, this possesses the most extensive as well as the most imposing structure. It is built of adobe, although stone and brick are used in some portions of it. It faces the south, and has a front of five hundred and thirty feet, the greater portion of which exhibits a colonnade of some architectural beauty, although but sixteen or eighteen feet high. On the front is also a church ninety feet in depth, with a tower and dome. North and south, the dimensions are upwards of sixteen hundred feet. This vast space included every thing that appertained to the mission. On the south-eastern corner is a small Campo Santo. Next comes the church with the priests' apartments immediately adjoining, and a small inclosure, or garden, shut in by the church walls on one side and by the main building on the other. This garden was handsomely laid out, and still contains a variety of fruit and ornamental trees. The main building is about three hundred feet square, with a colonnade in front. In the interior, is an open area of the same dimensions, with a beautiful colonnade all around. In the interior, of this was a garden; but the only plant of interest that remains, is a pepper tree. This stands in a curcular bed elevated

four or five feet above the area, and is protected by a wall.

On the four sides of this extensive area are double rows of apartments, some of which are very large, including reception rooms, dining halls, sleeping apartments, kitchen, etc. In the rear were corrals or inclosures for cattle; so that every thing appertaining to this vast establishment might be brought within its walls. It is all in a good state of preservation except the north-west corner of the area, where the roof has fallen in. Some of the cattle yards and stables are also out of repair. But the church, and nearly all the apartments occupied for dwellings are still habitable.

This establishment had been abandoned with most of the other Californian missions; but when the United States became the possessors of the country, several claimants sprung up for it, and its valuable lands adjacent, some resting on purchase, pretended or real, and some on other grounds. It is said to have been purchased by some native Californians from the government about the time the country was changing owners, who sold it to the Americans. Its ownership will be settled by the Board of Land Commissioners appointed by the United States government for the purpose. In the mean time General Hitchcock, commanding the Pacific Division of the U. S. Army, has placed a file of soldiers here, to protect the property and keep off plunderers and squatters.

I remained here two nights, accompanied by Dr. Webb and Mr. Pratt, artist of the Commission, and was hospitably entertained by the Sergeant in charge; the officer in command being absent in San Diego. In such a place as this, with such a range of buildings and cultivated grounds, a prince or a nabob might luxuriate to his heart's content. Near by is an extensive orchard and garden, inclosed with high walls, and filled with every variety of fruit-trees; but the acequias or irrigating canals, had been neglected, the dams and embankments washed away, and the beautiful gardens and shady walks, where the devotees passed long hours when not attending to their religious duties, were all overflowed. A swamp filled with rushes and rank weeds had taken possession of these walks and groves; and here the screaming heron and other water fowl had their hiding-places

The Sergeant, at my request, sent for an old Indian of the neighborhood, who called himself a chief. On learning that an officer of the U. S. government wished to see him, he made his appearance

with three others of his tribe. The old man presented himself in the dress of a Mexican officer--a blue coat with red facings trimmed with gold lace, and a high military cap and feather. He was quite communicative, and answered my questions readily. In giving me the words of his language, he enunciated them with great distinctness, and would not be satisfied with my pronunciation until all could at once recognise the word. When I had completed my vocabulary, and read off the native words, he evinced great pleasure as he repeated the corresponding word in Spanish, occasionally exclaiming Bueno, or Muy Bueno! He called his tribe the Kechi.

On inquiring as to the state of things when the padres were here, the old man heaved a deep sigh. He said his tribe was large, and his people all happy, when the good fathers were here to protect them. That they cultivated the soil; assisted in rearing large herds of cattle; were taught to be blacksmiths and carpenters, as well as other trades; that they had plenty to eat, and were happy. He remembered when three thousand of his tribe were settled in the valley, dependent upon or connected with this mission. Now he said they were scattered about, he knew not where, without a home or protectors, and were in a miserable starving condition. A few hundred alone remained in some villages up the valley, a few miles from the mission. He spoke with much affection of Father Peyri, its original founder, who had resided here for thirty-four years. At no time, he said, were there more than sixteen Spanish soldiers here, who occupied a building facing the mission, which is still standing.

Father Antonio Peyri took possession of this Mission of San Luis Rey (i.e. St. Louis the king) in the year 1798. He first built a small thatched cottage, and asked for a few cattle and Indians from the Mission. At the end of his thirty-four years residence, he left it stocked with nearly sixty thousand head of domesticated animals of all sorts, and yielding an annual produce of about thirteen thousand bushels of grain. After so many years of successful labor, in which he expended the most valuable part of his life, the worthy Father left his mission with only what he judged sufficient means to enable him to join his convent in the city of Mexico, where he threw himself on the charity of his order. The toil of managing such an establishment, would be sufficient motive for a man of Father Peyri's age to retire; but the new order to things, which had introduced new men and new measures, accelerated his resignation. Whatever his

motives may have been, his voluntary retirement in poverty, to spend the remainder of his days in pious exercises, must be applauded by the religious; and his noble disinterestedness by all.

Mr. Alexander Forbes, who met the venerable Peyri, and who has given us this account of his history, thus closes his remarks on this mission, and the affection entertained by the Indians for their pastor: "The best and most unequivocal proof of the good conduct of these Fathers, is to be found in the unbounded affection and devotion invariably shown towards them by their Indian subjects. They venerate them not merely as friends and fathers, but with a degree of devotedness approaching to adoration. On the occasion of the removals that have taken place of late years, from political causes, the distress of the Indians in parting with their pastors has been extreme. They have entreated to be allowed to follow them in their exile, with tears and lamentations, and will all the demonstrations of true sorrow and unbounded affection. Indeed if there ever existed an instance of the perfect justice and propriety of the comparison of the priest and his disciples to a shepherd and his flock, it is in the case of which we are treating. These poor people may indeed be classed with the "silly sheep" rather than with any other animal; and I believe they would, in the words of the poet, even "lick the hand though it was raised to shed their blood"-if this were the hand of the friar."

SAN DIEGO MISSION

Bartlett, John R.

Between April 24, 1852 and the middle of May, Bartlett visited San Diego Mission. We quote from Vol. 2, Bartlett's Narrative, beginning page 100:

Another interesting account of San Diego is contained in a letter written by Father Junipero Serra to Father Palou, in the year 1769, when the former landed here for the purpose of establishing the mission.

"My dear Friend and Sir:--Thank God, I arrived the day before yesterday, the first of the month, at this port of San Diego, truly a fine one, and with reason famous. Here I found those who had set out before me, by sea as well as by land, excepting such as died upon the way. The brethren, Fathers Crespi, Biscayno, Parron,

and Comez are here, and, with myself, all well, thanks be to God. Here are also two vessels; but the San Carlos is without seamen, all having died except one and the cook. The San Antonio, although she sailed a month and a half later, arrived twenty days before the San Carlos, losing on the voyage eight seamen. In consequence of this loss, the San Antonio will return to San Blas, to procure seamen for herself and the San Carlos. The causes of the delay of the San Carlos were, first, the want of water, and, second, the error which all were in respecting the situation of this port. They supposed it to be in thirty-three of thirty-four degrees north latitude; and strict orders were given to Captain Vila and the rest to keep out in the open sea till they should arrive in thirty-four degrees, and then make the shore in search of the port. As, however, the port in reality lies in 33°34', according to the observations which have now been made, they went far beyond the port, thus making the voyage much longer than was necessary. The people got daily worse from the cold and the bad water; and they must all have perished, if they had not discovered the port about the time they did; for they were quite unable to launch the boat to procure more water, or to do any thing whatever for their preservation. The Father Fernando did everything in his power to relieve the sick, and although he arrived much reduced in flesh, he had not the disorder, and is now well. We have not suffered hunger or privations, neither have the Indians who came with us; All have arrived fat and healthy. The track through which we have passed is generally very good land, with plenty of water; and there, as well as here, the country is neither rocky nor overcome with brushwood. There are, however, many hills, but they are composed of earth. The road has been in many places good, but the greater part bad. About half way, the valleys and banks of rivulets began to be delightful. We found vines of a large size, and in some cases quite loaded with grapes; we also found abundance of roses, which appeared to be the same as those of Castile. In fine, it is a good country, and very different from that of Old California. We have seen Indians in immense numbers; and all those on this coast of the Pacific contrive to make a good subsistence on various seeds, and by fishing; This they carry on by means of rafts, or canoes made of tule (bulrush), with which they go a great way to sea. They are very civil. All the males, old and young, go naked; the women, however, and even the female children, were decently covered from their breasts downwards.

be found in our journey, as well as in the places where we stopped, that they treated us with as much confidence and good will as if they had known us all their lives; but when we offered them any of our victuals, they always refused them. All they cared for was cloth; and only for something of this sort would they exchange their fish or whatever else they had.

"From this port and intended mission of San Diego, in Northern California, 3d July, 1769. I kiss the hands of your Reverence, and as your affectionate brother and servant,

"Fr. Junipero Serra."

Six miles from the town of San Diego, following up the valley, is the venerable Mission of the same name, a spot possessing great picturesque beauty, and surrounded by fertile and well watered lands. It was the last of the California missions that was abandoned; and but five years ago its ancient library and its priest still remained. The buildings, which are of adobe, are not extensive, but are in good preservation. They possess more of an Oriental appearance than any similar establishments. There was formerly a large vineyard and orchard, containing figs, peaches, etc., a portion of which is still in existence. The place is celebrated also for a flourishing orchard of olive trees, which still remains, yeilding a great abundance of olives, the excellence of which we had an opportunity of testing on our homeward journey. The mission is at present occupied by United States troops, under the command of Colonel J. B. Magruder, and in consequence is kept in good repair.

SPANISH MISSION AT YUMA

Bartlett, John R.

Writing on June 16, 1852, Bartlett says: (page 161)

Close by Fort Yuma the traces of the old Spanish Mission buildings may still be seen. These consist of partly demolished stone walls of small buildings; though a few years since the walls of a church were also visible. At the time of our visit these had been removed, and used for building the barracks. There were two hundred soldiers, artillery and infantry, here, under the command of Major Heintzelman. The officers and men were living in tents, covered with sheds made of branches to protect them from the sun. The post was established the year previous, but, not receiving the

usual supply of provisions, had been abandoned for several months. The command was as comfortably situated as the nature of the place and its inaccessibility would allow; but long deprivation of fresh provisions and vegetables had engendered the scurvy among the soldiers.

Notes on Alta California Missions— Tom - Library ?

1493—Pope Alexander VI divided the new worl between Spain & Portugal & enjoined that expeditions be accompanied by "worthy,.....men to instruct the inhabitants in the Catholic Faith.."

1512—A Dominican Monk, Antonio de Montesino, urged the King (Ferdinand) to protuct the Indians from exploitation by Spanish Colonists..

1543—Bartolome Las Casas who had been working for the Indians with Montesino succeded in obtaining the support of Charles V who issued a code of "New Laws" containin these provisions 1) the Indians should be permitted to dwell in communities of their own. 2)*They should be permitted to choose their own leaders & Councilors.*3) No Indian might be held as a slave. 4) No Indian might live outside his own village nor might any lay Spaniard dwell within an Indian village for longer than three days, and then only if he were a merchant or ill-5) The Indians were to be instructed in the Catholic faith..

An interesting commentary on this rule #2 was when Governor Neve of Alta Calif attempted to to have the Indians elect an Alcalde & 2 regidores over the objections of Father Serra and how this reported to have turned out badly as the Indians were unused to authority..cf pg 52 Adams Calif. Missions.

1540—Hernando de Alarcon sailed up the Gulf of Calif to keep in touch with Coronado expidition. He sailed from San Blas on one voyage and made three up to the mouth of the Colorado. He is credited with being the first European to set foot in Alta Calif although Francisco de Ulloa who had been at the mouth of the Colorado the yr before had landed several times at Baja Calif. Alarcon heard no news of Coronado and left a letter above the canyon just above Yuma which was found by Melchior Diaz who was with the Coronado expedition.

Notes on Alta California Missions—2—

1540—Melchior Diaz was Alcalde of the Pueblo of San Miguel in 1836 — & was one of the first to greet Cabeza de Vaca at Culiacan. Coronado sent Diaz & Juan de Zaldivar to check de Vaca's story of the seven cities of Cibola. They reached the Gila & heard the same stories later elaborated on by Fray Marcos de Niza. Diaz accompanied the Coronade expedition & was put in charge of the settlement of San Geronimo (ck this) & swung over to the coast near Tiburon Island and followed up the coast to Yuma to try to make contact with Alarcon. He missed Alarcon but heard that his boats had been seen & found the letter which Alarcon had left marked with a cross above the spot. The letter was left above the place where the Gila joins the Colorado. Diaz crossed the river to the Alta Calif side & therefore was the second European to touch Calif soil. Diaz died during the Coronado expedition in a freak accident when he threw his spear at a dog & his horse threw him onto the spear. Cardenas & Pedro de Tovar who were also with Coronado were responsible for the finding the Grand Canyon— Tovar led the way & Cardenas actually saw it.

1542 Juan Rodriguez Cabrillo a Portuguese sailor who was with Cortes at the capture of Mexico City in 1521 was first engaged by Pedro de Alvarado who with Mendoza, the viceroy, was preparing to explore. Alvarado died & Mendoza sent Cabrillo from Navidad in 1542 & in Sept of that year he reached San Diego. He discovered Santa Catalina & San Clemente Islands & claimed the land for Spain near Pt Mugu. He sailed north missing the Golden Gate & on his return put in to St. Miguel Island where he died.

1539 Francisco de Ulloa accompanied Cortes in conquest of Mexico & was sent by him to explore Gulf of California. Landed on Baja side south of Yuma & established that Baja was a peninsula..

1579—The English freebooter Francis Drake having left Plymouth with five ships & sacked Nombre de Dios in Panama circled ~~the~~ Cape Horn & sacked Valparaiso proceeded north & landed in a bay now known as Drake's Bay on the northern coast of California. He took possession of the land for England & sailed for the Spice Islands (Moluccas) & returned to England by way of the Cape of Good Hope. The King of Spain demanded his head but Queen Elizabeth knighted him.

1595 ~~Juan~~ Sebastian Rodriguez Cemeño was sent by Philip II of Spain to explore ports in California where galleons could put in in case of accident. He left the Philippines & reached California at Cape Mendocino. A storm forced him behind Pt Reyes into a bay which he called San Francisco but which was really Drake's Bay. Their ship was wrecked and they went south in a "viroco" a small open vessel propelled by square sails & sweeps. Going down the coast they missed the Golden Gate & probably visited Monterey. They then went on to Acapulco.

1596 Sebastian Viscaino had been a trader between Mexico & the Orient & was sent to establish settlements on the peninsula of Baja Calif. He established a colony at La Paz on Cortes' site, but shortage of food & the Indians made them abandon it. In 1602 they reached San Diego & gave it its present name. They went to Monterey & Drake's bay but missed the Golden Gate.

Junipero Serra was born in Majorca in 1713 & in 1749 the College of San Fernando in Mexico called him & Father Palou for duty in the New world. In 1768 after the Jesuit expulsion Father Serra was appointed President of the Missions of California (13 all in Baja).

1768 Jose de Galvez was sent by Carlos III as visitador general of the provinces to establish military posts at San Diego & Monterey to resist encroachments of England & Russia. Father Serra was at Loreto and joined Galvez at Santa Ana near La Paz. (The Marques de Croix was the new Viceroy). Three ships carrying troops & 4 missionaries went north to San Diego & two land expeditions one headed by Capt Moncada & one by Gov. Portolá. Father Serra went with Portola. (Portola had previously expelled the Jesuits from Loreto & brought in Fathers Serra, Palou, Juan Crespi & Lasuen. One ship was lost at sea and many died of scurvy on the others. Those going by land suffered many hardships also. Missions were established in the midst of hardships, later prospered and after 1833 were secularized and their wealth divided among politicians & their friends. In 1862 President Lincoln returned some land to the Church but the missions had suffered from neglect & earthquakes and most were not restored until the 1900's..

Carlos III who became king wished to restore Spain's pre-eminence & to prevent England who had gained Canada in 1763 from moving into California. After 1797 when its fleet came under the control of France, Spain's importance declined rapidly.

In 1833 Gov. Figueroa tried to secularize the missions ten each year with half of the holdings remaining under the control of the church and half being divided among the leading Indian families who would not be

able to dispose of them. If the Indians did well the balance of the mission properties would then be distributed. The plan might have succeeded but after Figueroa's death in 1835 the politicians ignored the Indians and distributed the land among their friends & relatives. San Diego of Alcala was founded in 1769. Of the 219 who had left Baja two months before little more than 100 survived. Father Serra established the Mission while Portola marched north to establish the presidio at Monterey. Two of Father Serra's priests returned to Mexico & were replaced by Fathers Jayme & Dumetz. Father Dumetz went to Baja for food supplies & a small flock of sheep but after this the mission received assistance from the establishment at Monterey. Portola was replaced by Fages as military commandante. He & Serra quarrelled & Serra went to Mexico & with the aid of his college in the Capital had Fages removed. This did not solve the problem because Serra also did not get along with Moncada who replaced Fages. Friction with the military was to continue throughout the mission era. One cause of friction was that the authorities wished to colonize California with Spanish colonists and Serra opposed this. While Serra was in Mexico the missions in Baja were transferred to the Dominican order & Fathers Palou & Lasuen & eight other Franciscan fathers came to Alta Calif.

Father Palou who was acting president while Serra was in Mexico had moved the mission of San Diego six miles inland because of his difficulties with the soldiers. Fr. Serra returned to San Diego in 1774 & in 1775 there was an Indian revolt & Fr. Jayme was killed. The soldiers were too far away to hear the fighting. The padres had to return to San Diego where they continue their quarrel with Mondada & in 1776 returned to their site in the valley. The structure was completed in 1813. At its

height San Diego Mission had 20M sheep, 10M cattle & 1250 horses/

San Carlos Borromeo de Carmelo founded 1770. Father Serra sailed to Monterey on the San Antonio recently returned from a trip to Mexico for supplies for San Diego & was met by Portola & Father Crespi who had gone on by land. The church was founded and the presidio was doing well. In 1770 Portola returned to Mexico & Fages replaced him. Serra had Fages removed but had had first moved the mission some five miles south to the Carmel river. The church at Monterey presidio continued in use for the soldiers & in 1794 was replaced by the church which is still in use. The Carmel Mission was a favourite with Father Serra & with Father Palou who became presidente when Serra died in 1784. Father Palou retired to Mexico in 1785 & his successor Father Lasuen was presidente for 20 years & it was then that they reached their greatest prosperity.

Ck—How many priests went with Portola's expedition?—Secular & Franciscan..

-23
y 1929)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Tumacacori NATIONAL PARK

FILE NO.

Frank Pinkley--Notes on

California Missions

IMPORTANT

This file constitutes a part of the official records of the National Park Service and should not be separated or papers withdrawn without express authority of the official in charge. Files should be returned promptly to the File Room. Officials and employees will be held responsible for failure to observe these rules, which are necessary to protect the security of the official records.

ARNO B. CAMMERER,
Director.

GOVERNMENT PRINTING OFFICE 6—7410

1921(?)

A Little Journey to the

CALIFORNIA MISSIONS.

****

Reported by Frank & Edna Pinkley.

****

When the older member of our firm took charge of the Tumacacori National Monument in 1919, we soon began to realize how little we knew about the line of missions which had been pushed up into what is now southern Arizona by Padre Kino during his long labor in the field of Pimeria Alta, beginning with his first visit to the site of the Tumacacori in 1691 and ending with his death in 1711.

Research work on the Tumacacori fell readily into two lines; its architecture and ist history. The second has never yeilded very great results because of the destruction of so many of the early records, but one needs only a small amount of imagination to restore the conditions under which the Padres labored by making an intensive study of their buildings which have come down to us. Since we will have to do more or less restoration as time goes on to hold the Tumacacori from disintegration, this study of the architectural problems of the Padres and their methods of solution yeilds not only fair results in giving us a more complete understanding of the past, but will be invaluable in our work in the fufute.

We soon found that, to know much about the why and wherefore of the Arizona chain of missions, we must know something of the Lower California missions which preceeded them. We must also know something about the other missions of the Kino chain which lie across the border south of us in the State of Sonora. And we must know something about the California chain of Missions which were founded later, but whose buildings, in many cases, were erected at about the same time as the present buildings at Tumacacori and San Xavier.

Father Zephyrin Engelhardt's five volume work on the Missions and Missionaries of California covers the historical details of the Upper and Lower California missions in a very thorough way and has been a great source of information for us. But all the time we were reading it we felt the lack of contact with the country and surroundings of which it was telling. It can well be imagined how pleasing it was, under these circumstances, to get instructions from the Service to make a thirty day expedition into California from my headquarters in southern Arizona and study the missions first hand.

We made the trip in a Ford truck having a covered body. The car had some special equipment in the way of a 10 gallon water tank on the lower part of the windshield, extra gas, oil and water canteens on the running board, sets of pockets on either side of the front seat for guide books, note books, kodak and the unumbered odds and ands which we wanted within east reach. On the back of each of the "lazy backs" were other sets of pockets, partly for the use of the children, and partly to hold the luncheon and daily purchases in order to eliminate the necessity of disturbing the pack during the day. In the top of the car were two other large, loose pockets. One held the sweaters and the other took care of the street hats of the family and the dress puttees which just would not pack well any-

****
Accepted by Frank A Egan Library.
****

where else. With the pack in the car, the children on the pack, ourselves on the front seat and Old Six strapped to the steering post just below the wheel, we felt ready to go to the world's end.

Our equipment for camping had been brought by previous experience to the minimum and the only articles we took which were not used in the months outing were some of the items in the medicine kit, and on the other hand, the only things which we needed which we had not taken were some heavier clothes to withstand the cold winds which we encountered in San Francisco. Our outfit contained an 8 x 8 Palmetto tent, two gold medal folding cots (the car body serving as a bed for the other two of us), two camp stools for the kids, two camp chairs for ourselves (for a comfortable camp chair is more than welcome in the evening after a hard day's drive), all the comforts and blankets we thought we could possibly use, suitcase for dress clothes, medicine kit with family standbys in it, not forgetting soft rage for bandages and potassium permanganate for snake bites, flashlight, steel tape, sewing kit, short shovel, axe, rope, field glasses, kodak, bird and flower guides, pencils and note books. These assorted items together with the Corona, grub box and cooking kit made a surprisingly compact and not too heavy load. Each of us had a bright gingham bag of different color for our toilet and personal articles which were hung one at each corner of the car when we were in camp.

Our cooking kit consisted of proven articles. A two-burner Kampkook stove was carried, though of course in the civilised part of our journey we often found cooking facilities provided in the public camp grounds. The large frying pan with its lid went into its own special gingham bag and was tied up where the soot on its bottom would do no harm. The other things were, three nested cooking pails (simple lard pails of various sizes with their lids), pudding pan for a mixing bowl, a slightly larger pan for a wash basin, a still larger one for a dish pan, and, lastly, a twelve quart water pail. The cooking pails nested into each other and they all went into the water pail. The pudding pans turned upside down on top making a compact package which went into a sack. We carried several old towels, tea towels, and rags, as well as paper towels.

The mess kit consisted of , four granite plates, four cups, four small bowls, knives, forks, spoons, toasting fork, long handled spoon, pancake turner, and table spoon.

The grub box was equipped with staples for two days meals in case of delay or failure to connect with the daily supplies.

We left home the evening of June 30, camping that night in the pleasant camp ground that Phoenix provides in Eastlake Park. Let us pass lightly over the two days trip across the desert, which was all that one could hope for with poor dirt roads and the temperature at 110 degrees, and begin at Mecca, California, which was still in the desert, but was where fruit and pavements began to appear. Here we could see the interesting Salton Sea off to the left, but as Mecca is well below sea level we paused only long enough to fill up on gas and then went on toward Riverside, which seemed the logical point for us to start from upon our pilgrimage to the missions.

We were interested in the date orchards at Coachella, where the dates, just beginning to ripen, hung in great clusters from the palms. We were told that only here in all America was it possible to raise the famous Douglet Noor date, which melts in your mouth like a delicately flavored bon bon. At Indio we bought our first watermelon, and from this point the proper title of this narrative should be 'Eating Our Way Through California.' The next items in the note book are "Banning.--peaches, Beaumont,--cherries." One has to live a few years in the desert to really appreciate a fruit country.

At Riverside, next day, we absorbed somewhat of the old Spanish atmosphere at the Mission Inn. Mr. Frank Miller deserves the thanks of all America for the infinite labor and immense sums he has expended in the erection of this institution. Our only regret was that we could not spend a week here and get really acquainted with the great collection which he must have spent a life time in gathering and arranging.

Leaving Riverside, we took the inland route to San Diego, through rolling uplands, passing beautiful Lake Elsinore, where we could not stop for lack of time; through Temecula, scene of the massacre in 'Ramona', and soon after turned off on a by road leading to the little known mission of Pala. This road was a constant joy to us, winding down a wooded canyon with now and then a glimpse of a tumbling brook at the bottom, spoken of by our eight year old as an irrigation ditch.

We arrived at Pala just before sunset and found a neat little Indian village lying in a valley surrounded by mountains. Pala was not properly a mission, but a visita, or assistencia and was administered from San Luis Rey which is about eighteen miles away down the valley of the San Luis Rey River. Pala now has a resident priest who ministers to the Indians and whites of the vicinity.

Pala is first mentioned in the reports of San Luis Rey in 1810, when Father Peyri says a granary was built at Rancho de Pala. I presume the walls of some of the buildings now standing date from about this time as we have no mention of a change of location or of rebuilding this mission.

The chapel is incorporated in, and is a part of the quadrangle of buildings. No attempt was made at outside decoration, the only indication of the chapel from the exterior being a porch brought down on the same angle as the roof and supported on four square piers. The longer axis of the chapel lies east and west and the room is 20 by 60 feet. The altar (a recent construction), is at the east end of the room and a railing divides this part from the less sacred portion. The whole room is floored with the great red burned bricks so common in mission construction, and their uneven surfaces and varying shades are one of the first things the visitor notices when he comes from the bright sunshine into the cool, semi-dark interior of the church. The side walls still show quite a bit of the original decorations, a conventional design in five or six foot panels, crudely drawn and painted in what seem to have been rather brilliant colors.

The roof is a restoration done on the original lines. I suspect Father Peyri grew careless for a moment when he designed the roof trusses. They are simple trusses made up of a large beam crossing from wall to wall, having notches cut in its ends where the foot of the heavy rafters, which form the pitch of the roof, are let in. A king post has been set in from the middle of the main beam running up to the point where the rafters meet. This is all heavy construction because the tile roof to be supported was very heavy.

This king post should have been mortised in at the top and bottom for it is really a straining member. It was treated as a compression member and a three foot sub-base was put under its bottom to distribute the compression on the beam. As a result of this construction the beams tended to sag in the center and in the restoration they are caught up by iron bolts. Here is one of the problems of restoration: to restore exactly as the original was built and then put in extra ~~bracing~~ bracing, or to change the original design enough to give the necessary strength. I should have changed it in this case, and if anyone objected I would have pointed to the roof trusses at Santa Barbara where the proper method was used.

The vestry at Pala is directly behind the sanctuary and is entered by a door at the left of the altar. It had another door opening to the north into the patio.

The buildings here had all gone to ruin after the abandonment by the Church and were restored by the Landmarks Club about 1903. Services are now being held in the Chapel and the resident priest has two or three rooms in the front row of the quadrangle. The remainder of the buildings have been transformed into the sales room and storage rooms and outbuildings of an Indian trading post.

The ~~cemetry~~ cemetery lies to the south of the Chapel and here is the interesting campanile. Not wishing to go to the expense of raising a large bell tower, the Fathers built this detached construction, consisting of one arch superimposed on another, the whole raised several feet above the ground on a sub-base. We were told that the original was built of adobes and melted down in a great flood caused by an extradrdanary rainy season some fifteen or eighteen years ago. The present construction is an exact reproduction of the original, even to the little cactus which can be seen growing from the top near the foot of the cross. It is the only campanile of the kind in the southwest and was an excellent solution for the problem which confronted the builders of the mission. Many of our smaller churches of today, instead of running up a spindling weak bell tower from the roof, would do well to follow this example of solid, honest construction which fits in so well with its surroundings.

We camped for the night of the fourth of July just back of Pala Mission on the bank of San Luis Rey River under a wide spreading sycamore tree. The next morning, while we were breaking camp, we heard the clear tones of the bells calling the people to the service, and we still carry a pleasant memory of the white walled church with its red tiled roof with its cemetery and bell arches, all surrounded by mountain slopes and brilliant in the early morning sunshine as we drove away toward San Diego.

We spent the night of the fifth with some friends in Escondido and continued our journey on the sixth.

We were now approaching historic ground which connected us directly with Father Serra. It is an interesting fact that for each separate country or section of country, there is some outstanding figure, mythical or historic, whose personality and influence permeates every phase of the country whose hero he may be. Such a figure for southern California is Futher Junipero Serra, the

dominant personality behind the chain of wonderful missions which runs from Mission San Diego de Alcala on the south to Mission San Francisco Solano de Sonoma about fifty miles north of San Francisco. The record of heroic struggles against almost overwhelming obstacles and seeming failure has made Padre Serra unique in his position as the crowning figure of Southern California history. Coming from Mexico with his little band of faithful Franciscans in the company of the earliest Spanish Conquistadores, bound by his vow of poverty and devotion, suffering often from the need of the commonest necessities, facing the most crushing discouragements with a sublime faith, in the constant bondage of the physical ailment which finally caused his death, his indomitable spirit marched triumphant to the end and hovers today around the magnificent ruins of his great achievement, the California Missions. It was here at San Diego that he had spent his first hard year of waiting, hampered by the military authorities, weaken by hardships and met by apparent failure.

Before we reached the city the road dropped into the so-called Mission Canyon, which had better have been named the Mission Valley, and, leaving the state highway we turned to the left and went up the valley a few miles to the site of Mission San Diego.

The site of the original mission was down near the bay in that part of the city now called 'Old Town', probably a little to the east of the building now being exploited as Ramona's marriage place. It was here the mission was founded on July 16, 1769. Soon after a church or chapel was constructed of poles and roofed with tules. In 1773 Father Palou reports that on one side of the stockade there was an opening for the foundations of a church which was to be about thrity yards long. For this some stones and four thousand adobes had been prepared. Work on this church was stopped at that time for want of provisions and it was never finished. In 1774 it was decided that it would be better to move about six miles up the river where there was a better chance for irrigation, and by December of that year a church of poles roofed with tules had been built on the new site.

This church was burned and Father Luis Jayme was murdered during an Indian attack on the night of November 4, 1775.

For a time services seem to have been held in some of the other rooms which had not been destroyed, and another church was built in 1777 which measured about 14 by 30 feet. This is described as having one door with a lock and two small windows. This was looked upon as a temporary construction and Father Lasuen says "Provided the harvest corresponds to what was planted, the building of the church will begin in the coming year (1778)." This other church was finished in 1780. It was about 84 feet in length and about 15 feet in width and height. Its adobe walls were three feet thick. It was roofed with tules which were protected from fire by being covered with a layer of earth.

We come now to the walls which one sees upon his visit to the present ruin. In a letter from Father Sanchez to Governor Arrillaga, dated September 29, 1808, is the following: "On the present day of September 29, 1808, the beginning was made with a church at this mission." In a report dated 1811 information is given that the roof of the church, which was to have been flat, had to be taken down, and likewise almost the whole front, on account of serious cracks. The great earthquake of December 8, 1812, seems not to have interrupted the work or injured that part of the building which was then built. On November 12, 1813, this new church was blessed with all formality. Thus a little over five years were occupied in its building.

We present two plans of this church; one on a very small scale showing the complete layout of the buildings and corrals, and the other a larger scale (1/16 inch = 1 foot) plan of the church itself.

It will bee seen that the church does not face west, but is laid in a southwesterly direction. This is due to the location for the buildings are set back on high ground away from the river and were so placed that the outlook was down over the orchard, garden and irrigated lands. It may be said here in passing that none of the churches in California were laid due east and west as was the custom so often observed in the churches and cathedrals of Europe. As a rule the missions face toward the direction from which the visitor approached at the time they were built. Conditions have changed in many cases and we sometimes approach them now from the side or rear.

From the small plan you can see the buildings formed a quadrangle of which the church occupied nearly one whole side, the Fathers and visitor's rooms the front and the quarters for the neophytes and rooms for storage of supplies made up the other sides and an ell running to the left. The corrals for the stock were outside the quadrangle, but I suppose if trouble were expected the stock might be driven inside the quadrangle. The small plan is copied from Engelhardt's 'San Diego Mission' and he seems to have reproduced it from an old Spanish manuscript but does not give credit to the original authority. The larger plan of the church is copied from a restoration plan made by Mr. W. B. Benton, a Los Angeles architect who is connected with the movement looking toward the restoration of the building. Some differences will be noticed between the two plans and I am inclined to doubt if either of them is absolutely correct.

The outstanding architectural feature in Mission San Diego, which is not found in any other mission is the method of throwing wing walls forward from the facade at an angle of about 45 degrees. These walls were I think primarily for bracing the front walls and corners of the building, and secondarily formed a decorative feature. The space between these wings was floored with red bricks and protected from the weather by a roof. The view of the front shows the holes in the wall above the entrance door where the ends of the rafters of this roof were bedded. On page 182, Engelhardt shows a drawing of the mission made in 1848 which shows the front of these rafters supported on a series of three arches. Assuming this detail of the drawing to be correct we might almost call this construction lying between the arches and the entrance door an exonarthex. An error was made by the builders in not centering the entrance doorway in the back wall of this exonarthex but, for some reason, which I have not yet discovered, it is a little to the right of the center as is shown in the plan.

The base of the bell tower is to the left of the facade as one faces the church and helps the wing wall to brace that corner of the building.

The old gentlemen who shows visitors around told us the tower was complete at one time but had fallen in one of the earthquakes. When we questioned the statement, after examining the walls, he showed us a copy of this drawing of 1848, which shows a three story tower standing on the base as we see it today. The drawing is not accurate in some details, as for instance, the choir loft window which is shown as arched whereas it has an original flat lintel still in position, and the curves of the facade which are not correctly represented. We are still inclined to think

the tower was never completed and the artist who made the drawing of 1843, drew on his imagination for this detail of the picture.

A very good photograph of the building shown by Father Engelhardt on page 304 which was taken while U. S. troops were occupying the mission, shows the tower stub as it stands today. This picture must have been taken within ten years of the time the artist made his drawing and the entire destruction of the bell arches by an earthquake and removal of the debris (for it does not show in the photograph) could hardly have occurred without some local notice being taken and some record being made.

The bruce walls seem to be made of a brick shell backed with rocks and mortar. The tower base is of rocks laid in mortar. The church and dwelling walls were of adobes.

Upon entering the church one found himself under the choir-loft which spanned from wall to wall and was supported on heavy beams. The entrance to the baptistry was to the left. The restoration which has been done along here has not followed the original lines, as the entrance to the baptistry has been made to project into the church room a foot or more, while the old plan, and the logic of the walls in that corner, show no such projection. The choir loft was lighted by a window through the facade of the church, and seems to have been reached by going through a small door opposite the baptistry entrance, not shown on Mr. Benton's plan but clearly shown in the wall itself where it has been stopped up in later times with adobes, and up a stairway to another doorway, likewise stopped up in later times, which opened back through the wall into the choir loft.

The church walls are now gone from the baptistry forward on the left hand side and from about the front of the choir loft forward on the right hand side. The right hand wall is partly restored, but the restoration is not good. A large doorway with a large window above it have been let into the restored wall just in front of the choir loft. The only way we can account for their getting into the restoration is that the restorers trusted to some one's memory of how that section of wall looked. A photograph taken in 1886, shown by Engelhardt on page 308 shows no such openings as these and an examination of the picture with a glass will show no such openings which have in later times been stopped up. The large door in the south wall of the church occurred farther back where it is shown on the small plan and in restoring it the walls should have quite a splay to the inside. The north or left hand wall should be examined very closely along its foundation for a doorway opposite the one in the right hand wall. The old plan does not show it there, but the records speak of the cemetery being on that side of the church and we should strongly suspect a doorway through which the funeral procession could go directly into the cemetery. A splay shows at about the right place in the wall but a casual examination did not prove it to be original.

Pilasters were carried up the ~~walls~~ walls, partly for decoration no doubt and partly to strengthen the walls. The roof was made of heavy beams, about twelve inches square, each end of which rested on a corbel of the same size which projected two or three feet from the wall. Heavy rafters were notched into these beams and these rafters carried the construction for the tile roof.

The last pair of pilasters toward the back of the church probably mark the location of the sanctuary railing and just behind this railing to the left a door opened into the sacristy. The

pulpit was entered directly from the sacristy. It will be noticed that the rear corners have been strengthened by building them in for a few feet along each wall.

The room directly behind the sanctuary is called by Mr. Benton the 'Priest's Room' and he shows no doorway leading out of it into the quadrangle

Excerpts from an account of the Pinkley trip to the California missions, written by Edna Pinkley (1921?).

(Manuscript in possession of Nancy Pinkley.)

Going north (from Ramona's marriage place) the San Luis Rey de Francis, 'King of Missions', next greets us. This has been restored with intelligence and is a gem of architectural beauty. The little side chapel with its domed roof is a place of real charm. This was probably originally the mortuary chapel since its door leads into the cemetery. . . The large parchment hymn books, hand illuminated and large enough for all the choir to see at once were marvelous pieces of work as were the Bible and prayer book made in the same way.

The kitchen (at San Juan Capistrano) was very interesting being nothing more or less than a massive flue with a lattice work over the top to keep the rain out.

. . . . . to the Mission San Fernando, Rey de Espagnia. The monastery is the best preserved part of this mission as in several other cases, . . . San Fernando Mission, by the way, is in the city of Los Angeles, tho only about twenty five mil s north. Another interesting sight in this little park (infront of the mission) is the group of vats each fully nine feet in diameter and five feet deep where soap and candles were made. . . There are wonderful relics here (in the monastery) including books, farming implements, vestments, and handmade furniture. The prize of the collection is a large velvet cope still in fine state of preservation. Into this were wire vaults in a specially prepared room with a trough where the Indians were supposed to have washed their feet before treading on the vine grapes. Still lower in this apartment were the arched cellars where the barrels of wine and bales of supplies were kept, and whither in time of danger the padres might retreat in safety. The narrow smoke room and kitchen were of much interest here. The smoke room was built like a huge flue with the narrow opening for the smoke in the roof of the building and beams from which to hang the meat inserted near the top. . . Walking over the top of fallen roof of the rear of the monastery we can see the walled fields and remnants of gardens.

. . . San Carlos el Carmelo, which is often confused with San Carlos Borromeo in Monterey, which was the presidio church while Carmel was the true mission to the Indians. . . .

Carmel was the favorite mission of Padre Serra and here he finally ended his days and was buried. His body still lies on the left hand side of the altar in the sanctuary of the church. This Mission is a veritable museum, altho the church itself will be more attractive when some of the restoration is done over. One very interesting objet d'art here is the set of medallions of the Popes, running back to St. Peter. They are in cameo and worth much study for the different racial characteristics of the several faces are painstakingly delineated. The winding stair that led to the choirloft thru the righthand tower was a work of art and the choirloft itself very interesting. The baptistry is under the other tower and the original font in place. We found the most artistic thing of all when the guide led us around outside to the stairs that led to the bell tower. These rough stone steps were in an alcove between the bell tower and the mortuary chamber. Vines were clambering over them and a statue in a little niche underneath made it have the appearance of a wayside shrine. This church was of stone and the carving was admirably done.

- - - - - -

Other missions visited:

San Antonio de Pala
Los Angeles Mission Chapel
San Gabriel
Santa Barbara
Lompoc mission
Santa Inez
San Luis Obispo
San Miguel
San Antonio de Padua
Maria Sanctissima, Nuestra Senora de Soledad
San Carlos Borromeo
San Juan Batista

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
HEADQUARTERS, SOUTHWESTERN MONUMENTS
COOLIDGE, ARIZONA

May 11, 1940

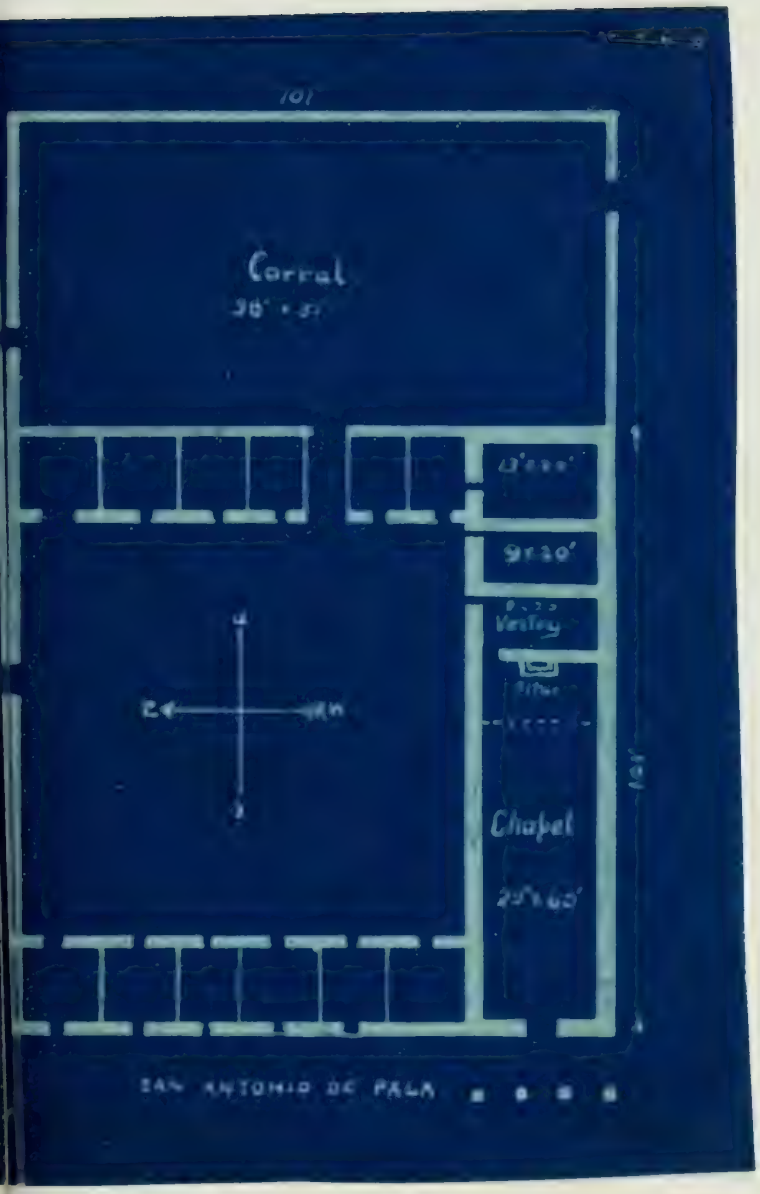
Louis R. Caywood,
Tumacacori National Monument,
Box 767, Nogales, Arizona.

Dear Louis:

I am enclosing some notes on the California missions. These were made by the Boss - I think in 1921. Included are a few Tumacacori articles also.

Cordially,

Charlie R. Steen,
jr. park archeologist



arbor of 1772
he Valley of the
of 1769, and here
is, Bishop of
o start the new
s and five soldiers.
they have their
for the Fathers
partment for the

12 converts. The
deer, rabbits,
t to render
ission and
uncheria in that
ed a large part of
her destruction.
ourishing until his
the mission ceased.
1798 there were still
1797 (1439).
36 and 140 and 130
eight years-old at

this mission.

Father Viribet continued as senior missionary until 1775 when he left California for his college, his last signature on the San Luis books being

SAN LUIS OBISPO DE TOLOSA

Padre Serra, on his journey south to San Diego in the autumn of 1772 brought Padre Cavaller with him from San Carlos as far as the Valley of the Bears, which had been so named by the Portola expedition of 1769, and here it was, on September 1, 1772, that the Mission to St. Louis, Bishop of Toulouse, was founded. Padre Cavaller was left in charge to start the new mission, having as companions two Lower California Indians and five soldiers.

The next year Padre Palon says, "within the palisade they have their little church of stakes and tule, and some living rooms for the fathers with the corresponding workshops, storeroom and living apartment for the soldiers of the guard, all of stakes and tule."

At the end of 1773 Bancroft says San Luis had only 12 converts. The surrounding population was large but they had plenty of deer, rabbits, seeds and fish and under these condtions it was difficult to render mission life attractive to them. They came often to the mission and were good friends with Father Cavaller but, having no rancheria in that vicinity would not stay. In November 1782 fire destroyed a large part of the mission buildings. Tiles were made to prevent further destruction.

Father Jose Cavaller ~~served~~ served continuously from the foundation until his death on December 9, 1789. His remains were buried in the mission church.

His associate was Antonio Paterra until December, 1786 when he went to found Santa Barbara and Miguel Giribet came in December 1787 (1788).

In 1790 San Luis had 605 neophytes; had babtized 332 and had had 130 deaths. Want of water is given in Fages' report as the chief drawback at this mission.

Father Giribet continued as senior missionary until 1799 when he left California for his college, his last signature on the San Luis books being

October 2, 1799. He sailed from San Diego January 16, 1800.

President Lasuen seems to have acted as senior minister after Viri t's departure until August, 1800 when Jose Miguel came.

The position of associate was held by Estevan Tapis in 1790-93. Gregorio Hernandez in 1794-96. Antonio Peyri in 1796-98 and Luis Antonio Martinez who began his long ministry in 1798. Bartolome Gili spent some time here before his departure in 1794.

By 1800 the mission had gained in neophyte population until it had 726. It reached its highest figure in 1794 with 946 souls. A water power mill was finished in 1798: a miller, smith, and carpenter of the king's artizan instructors were sent here in 1794 and a small quantity of cotton from San Blas was woven on the mission looms.

The church, of adobes with tile roof, was built before 1793, in which year a portico was added to the front. In 1794, the minister's house, work-room, barrack, and guard house were completed. The native huts were well built and afforded protection against everything except fire.

Jose de Miguel left the mission in 1803 and Marcelino San Jose y Marquinez took his place. By 1810 the number in the community had decreased to 713.

Father Marquinez was replaced in 1811 by Antonio Catarino Rodriquez.

By 1820 the population had decreased to 504. It is said by Jose de Jesus Pico that the Indians of this mission were always well dressed better than most of the gente de rzon in the country. Good blue cloth was made and woolen manta; also some home grown cotton was woven.

By 1830 Alfred Robinson describes the buildings at San Luis as being in a state of decay with marks of neglect in every direction. The population had decreased to 283. Father Martinez was still in charge.

The Presidio Church at Monterey

This church is not properly called as one of the California mission churches, although it is taken to be one by all visitors and the greater part of the local population. The original mission was, as has been said, founded at Monterey on June 3, 1770, but, on account of the bad influence of the soldiers on the Indian neophytes, it was moved over the hills to the Carmelo river in July, 1771. This left the little church at the presidio to serve the soldiers only.

I have no date for the erection of the present walls of the Monterey church, but they were certainly not built for many years after the establishment of the town. I doubt very much if they date before 1800.

The facade and bell tower of the church are interesting and the rest has been restored so much as to be nearly valueless. The facade and tower have been treated separately, the front of the church being covered with decoration and the base of the tower up as far as the bell arches being left plain with one small square opening in the front through which the stair way is lighted. The walls are of stone and the decoration is beautiful. This decoration divides the front of the church into two stories. The central motif in the lower story is the great arched entrance, closed then as now by double doors. To each side of this entrance two pilasters run up the wall and between these pilasters are niches for statuies. The statues stand on delicately worked corbels and were covered overhead with a little moulding or canopy of stone work. The pilasters carried a cornice which was topped by a moulding which marks the first story of the decoration. Just above this moulding in the center of the wall is the choir loft window with a pointed moulding worked out above it. To each side of the choir loft window choir loft window ~~and corresponding another~~ a pilaster which has its base on the

moulding below, runs up past the choir loft window and supports another cornice or moulding in the pediment of the facade. Above this latter moulding, near the top of the pediment, is a niche for another statue, and over all or top of the pediment was a cross. The whole construction and design is very interesting.

The tower is original as far as the roof which has been restored and I think the restoration of the roof can hardly be along the original lines. Red tiles have been used and the touch of color is good, but the roof looks flat and dumpy. The effect of the arches is rather spoiled by modern brace work for the bells which are arranged to be rung by swinging instead of hanging on rawhide ropes and being tolled as the original bells no doubt were.

The interior of the church, as I have said, has been spoiled by too much restoration. The small windows have been cut into gothic arches; the choir loft has been extended forward several feet to provide for the larger choir now used; and, worst of all, not contented with the straight nave and sanctuary plan of the original church, the restorers cut out the side walls and ran out transcepts, making a cruciform plan. Also the old roof construction is hidden behind some nice modern matched ceiling.

The church, as it is fixed up inside, is pretty, but the average visitor, who is interested in missions and is intent on getting the atmosphere of the old days in California, will get far more enjoyment from the outside than from the inside of it. The cheerful way in which some of these landmarks of other times have been spoiled makes one pause ever just how much restoration should be done. Protection against time and the elements, we all grant must be given, although it sometimes takes away from the beauty of the ruin; but this cutting small windows into gothic ones and sticking transcepts into a plan which was never designed to receive them, is a mistake

in the long run, no matter how "pretty" the building may look with such additions.

I understand that a movement is on foot in Monterey to raise funds enough to change this church back to its original interior as nearly as it can be worked out, and I sincerely hope the movement is successful.

Mission San Carlos de Borromeo

Mission San Carlos de Borromeo was founded at the presidio of Monterey on June 3, 1770. For the purpose of the foundation ceremonies a brush shade was erected and the first holy Mass was sung under this shelter by Father Serra himself.

A year later, in July, 1771, it was thought better, on account of the bad influence of the soldiers on the Indian neophytes, to move the mission a few miles over the hills to the little valley of the Carmelo river. Three sailors and four of the Lower California Indians were put to work framing timbers for the new construction. Work was proceeding slowly in August and it was not until December, 1771, that a wooden chapel, dwelling, storehouse, soldiers' quarters and corral were completed and surrounded by palisades. Father Serra and Father Crespi then took up quarters in the new buildings and began their work. This mission is often spoken of as Mission Carmelo by the Fathers because of its location near the little stream, but in official reports it is San Carlos de Monterey, or San Carlos alone. The chapel and buildings at Monterey are called Presidio de Monterey, or simply Monterey, though it likewise stood under the patronage of San Carlos. It was simply a visita. No resident Father lived there but it was served from Mission Carmelo.

I have been unable to find any dates on the later buildings erected at Carmelo, but after the wooden buildings had served their purpose an adobe church and living rooms were put up. The plan of this adobe church had been uncovered in front of and to the left of the present church, and, at the time of my visit, work was underway to restore the buildings.

On August 28, 1784, Father Serra died and on the following Sunday his remains were buried in the church then in use on the Gospel side of the

Altar under the floor of the sanctuary. I am inclined to think this was in the adobe church and his remains, together with those of Father Crespi, were afterward transferred to the new church and put where the inscriptions are now shown to the visitor.

The new church is of stone and was an enormous piece of work for the time in which it was constructed. I am inclined to date it after 1800, although as yet I have been unable to find any mention of its construction. It was abandoned soon after 1833 and fell into ruin. It was restored about 1880 and services have been held within its walls since that time.

The church was built of stone, which could be obtained not very far away, and the design is good. The roof was a barrel vault of stone and the front wall was carried up into a semi-circular pediment corresponding to the curve of the roof. The arched entrance doorway opened through the center of the front and was beautifully decorated with a moulding around the arch and with pilasters carved from the solid rock and supported a stone lintel over the arched entrance. The choir loft above the entrance was lighted with a beautiful star shaped window which constituted the second unit of decoration on the front of the church. The front was flanked by a large tower on the left, the bell tower, and a small tower, the stair tower, on the right. A horizontal moulding was carried around these towers at the spring line of the roof and this moulding was carried over the semicircular pediment. At the center of the top of the pediment a part of the [illegible] still stands and is probably the base of a lofty stone cross. [illegible] of the towers was likewise probably surmounted by a cross. [illegible] a baptistry in its base and access is gained to the arches and upper construction by means of an outside stairway. [illegible],

starts in back of the tower, runs to a landing and then turns and comes forward, entering the tower from the rear along the wall of the church. The tower has two bell arches in front, one at the side and a small one at the rear. The three larger arches all start at the moulding line on the tower but for some reason the two front ones have been filled up some two feet, probably with the idea of adding symmetry to the design.

The tower on the right contains a winding stair which carries one up from the floor of the church to the choir loft. The top of this smaller tower carries four bell arches which are roofed over with a square pedestal which is probably the base of a large stone cross. The arches of the bell tower are covered with a flat roof from which rises a short octagonal wall which in turn carries a stone dome which was surmounted by a cross.

The barrel vaulted roof seems to have failed some sixty or eighty years ago and in the restoration a gable roof was put on. The pitch of this new roof was so high that it overran the pediment in front and the front wall was built up in the shape of a gable, so that at present it rather overtops both the towers and destroys the original line of the building.

Entering the church brings one under the choir loft with the entrance to the base of the bell tower on the left and the entrance to the stair tower, by which one can go to the choir loft, on the right. The base of the bell tower is now in use as a baptistry but we were told that a chapel which is built on the south side of the nave was the original baptistry. It is now filled with discarded odds and ends of furniture. So much refurbishing has been done on the interior that a great part of the interest is destroyed, but one can go back to the high altar, turn to the right and enter the sacristy. Here some of the old robes and furniture are shown to the visitor and he is allowed to climb a great set of stone stairs, from the landing

of which the pulpit entrance was built through the wall of the church to the pulpit, and peep into a loft overhead, which the guide told us was used to pen up bad Indians until they repented, - a use which we took with a large grain of salt.

The main points of interest in this church are the facade, the winding stair to the choir loft, the stairway to the arches in the bell tower, and the last resting place of Fathers Serra and Crespi, who gave their lives that these missions might prosper.

Mission San Diego de Alcala

The ruins of the Mission San Diego de Alcala stand back from the bank of the river, overlooking a fertile group of fields some six miles east of the city of San Diego.

The site of the original mission was down near the bay, in that part of the city now called "Old Town", probably a little to the east of the building now being exploited as Ramona's marriage place. It was here the mission was founded on July 16, 1769. Soon afterward a church was constructed of poles and roofed with tules. In 1773, Father Palou reports that on one side of the stockade there was an opening for the foundation of a church which was to be about thirty yards long. For this construction some stones and about four thousand adobes had been prepared. Work on the church was stopped at that time for want of provisions and it was never finished. In 1774 it was decided that it would be better to move about six miles up the river where there was a better chance for irrigation, and by December of that year a church of poles roofed with tules had been built on the new site.

This new site was raided by the Indians on the night of November 4, 1775, the new church was burned and Father Luis Jayme, who was in charge, was murdered.

For a time after this, services seem to have been held in some other room which had not been destroyed, and another church was built in 1777 which measured about 14 by 80 feet. This church is described as having one door with a lock and two small windows. It was looked upon as a temporary construction for church services, and Father Lasuen says: "Provided the harvest corresponds to what was planted, the building of the church will begin in the coming year (1778). This other church

was finished in 1780. It was about 84 feet in length and about 15 feet in width and in height. Its adobe walls were about three feet thick. It was roofed with tules which were protected from fire by being covered with a layer of earth.

We come now to the walls which one sees upon visiting the present ruin. In a letter from Father Sanchez to Governor Arrillaga, dated September 29, 1808, is the following: "On the present day of September 29, 1808, the beginning was made with a church at this mission." In a report dated 1811, information is given that the roof of the church, which was to have been flat, had to be taken down, and likewise almost the whole front, on account of serious cracks. The great earthquake of December 8, 1812, seems not to have interrupted the work or injured that part of the building which was then standing. On November 12, 1813, this new church was blessed with all formality. Thus a little over five years were occupied with its construction.

The church faced in a southwesterly direction. It was so located that a general view of the orchard, garden and fields could be had from the arcade in front of the church and rooms of the fathers. It may be said in passing that none of the churches in California were laid due east and west as was the custom so often observed in the churches and cathedrals of Europe. As a rule, the California missions face that direction from which the visitor approached at the time they were constructed. Conditions have changed in many cases and we sometimes approach them now from the side or rear.

The primary grouping of the buildings at San Diego Mission seems to have been around a quadrangle. The facade of the church and the double row of rooms composing the quarters of the fathers, made up the front of

the quadrangle; the church, with a few rooms behind it, formed the left side as one faced the group from the front; storage rooms and corrals formed the right side, and rooms for the neophytes formed the back. A row of buildings ran to the left away from the quadrangle at the rear of the church, but they appear to have been stables or storage rooms for crops, and might have been added at a later date.

Approaching the group of buildings from the fields, one came up a slope to the long colonnade in front of the rooms of the fathers and could sit and rest and look out over the activities in the fields while he talked. One must not suppose from the size of the rooms or the number of them, that the fathers who lived here in charge of the property lived in anything like luxury. They were not all used for actual living purposes. As at San Fernando and San Antonio, the wine presses and cellars were in the quarters of the fathers, where they could probably look after the distribution of the wine and see that the neophytes did not overindulge. At Santa Barbara in one of the rooms next the church is the old olive press. And so some of these rooms in the Father's quarters will be found to have been used for various purposes for the good of the community.

Going through the Father's quarters, one came out into a great patio or courtyard where the general activities of the community centered. Around this court one found the Indians busy at their various tasks; repairing harness and carts, treating and storing the various crops, and feeding and caring for the many animals which were needed to carry on the work.

There was probably a colonnade around at least part of this courtyard, where the inhabitants could rest in the shade in the heat of the summer's day.

The church walls overshadowed the left side of the courtyard as one came out of the father's quarters, and midway down its side a great set of double doors gave access from the courtyard to the nave of the church.

The outstanding architectural feature in the church, which is not found in any other mission, is the method of throwing wing walls forward from the facade of the building at an angle of about 45 degrees. I think these walls must have been primarily to brace the front wall and corners of the building, and secondarily they formed a decorative feature. The space between these great buttresses or wings was floored with red bricks and was protected from the weather by a roof. This roof at the back was supported by the facade of the church, the pole rafters resting in the wall above the entrance doorway and below the choir loft window. At the sides it ran out on the buttresses and at the front it was carried on a series of three arches which spanned the distance between the outer ends of the buttresses.

The base of the bell tower is at the left of the facade as one faces the church. It is united both with the church and the buttress on that side and, being of solid masonry, was a material help in bracing the church against earthquakes. We were told by the guide that the bell tower was once complete but had fallen some time after 1848. As evidence of this he showed us the drawing in Father Engelhardt's "San Diego Mission". I very much doubt the accuracy of this drawing which shows a crude, three story tower standing on the present base. In the same volume is a photograph of the mission taken during the occupation by U. S. troops. This photograph must date around 1842 to 1845 and shows no signs of the arches of the bell tower, either as standing or as piles of debris on the surrounding ground. I cannot imagine their having fallen between the time of the

drawing and the time of the photograph, without causing any local mention whatever, yet we find no mention in reports of that time. I am rather inclined to think that the artist in making his drawing thought to improve his picture by showing the bell tower complete and gives us his own idea of how it would have looked if it had ever been completed.

The buttresses seem to be made of a brick shell backed or filled with rocks and mortar. The tower, as far as it is constructed is of rocks laid in mortar. The walls of the church and dwellings were for the most part of adobes, but burned bricks were used in some parts.

Upon swinging back one of the great doors on its wooden pivots and entering the church, one would have found himself under the choir loft which spanned the church from wall to wall and was supported on wooden beams. The baptistry was to the left, not directly in the base of the tower, as is so often the case in mission construction, but in a niche which seems to have been partly in the wall of the church and partly in the tower base. To the right, a short distance from the corner, a low doorway once led through the wall. From the outside a stairway is supposed to have run up and another doorway at the top returned through the wall into the choir loft above. These two doorways are now blocked up and no trace of the stair way shows. The choir loft was lighted by a window in the front wall which falls directly over the entrance doorway.

The walls of the church are now gone from the baptistry forward on the right and from the front of the choir loft forward on the right. The right hand wall is partially restored but the restoration is nothing to brag about.

The original walls were broken into panels by carrying up pilasters which served the double purpose of decorating and stiffining the construc-

tion. The roof was composed of heavy beams about twelve inches square, each end of which rested on a corbel of the same size which projected two or ~~three~~ three feet from the wall. The ends of the beam were notched for the reception of the ends of the rafters. These main rafters carried the secondary construction, the final surface being a layer of tiles. The roof construction was not different from that still to be seen in several of the missions.

Toward the back of the church, on the northwest or left side, was a long lean-to-like construction which was probably the sacristy. One entered this sacristy from the church by a door leading to the left at a point not far in front of the High Altar. The Father, in giving his sermon did not come through this door to enter his pulpit, but came through a special opening in the wall some twelve or fourteen feet farther forward directly into the pulpit itself which was fastened to the wall several feet above the church floor. This feature of entering the pulpit through a special opening is quite common in mission construction and can be observed in the Sonora-Arizona chain as well as in California.

The High Altar was built against the back wall of the church room; but, the side walls being carried beyond the Alter wall, made another room at the rear of the building. Many of the missions make this room behind the Altar the sacristy, as at San Gabriel, or Santa Inez, or San Miguel, but, thus far at least, no doorway seems to have been found opening directly into the church room. The only means of getting into this room from the church was to turn to the left in front of the Altar and go into the sacristy, then come far enough to the rear to pass the Alter wall, when another doorway gave access to this rear room. From it one could go on back into the quarters to the rear.

San Diego Mission prospered until 1834 when the Decree of Secularization went into effect and the missions were taken out of the hands of the Fathers. In 1832 Mission San Diego had 4,500 head of cattle, 13,250 head of sheep, 150 goats, 220 horses and 80 mules. From the date of secularization the property began to disappear and in a few years nothing was left but the actual walls of the buildings. These were occupied at various times between 1850 and 1860 by U. S. troops, after which they were again abandoned and allowed to go to ruin. The dwelling rooms were occupied at several periods by Mexican families.

As a result of these various periods of habitation and rehabitation, the walls that are left today are more a problem for the student to decipher than a pleasure for the casual tourist.

Mission San Gabriel Arcangel

Mission San Gabriel was founded on the feast of the Nativity of the Blessed Virgin Mary, September 8, 1771, the first holy Mass being celebrated in a brushwood hut erected for that purpose. This first intention was to establish this mission near the Santa Ana River, but an examination proved that site to be unsuitable and the Rio San Miguel, now a branch of the San Gabriel River and called the Rio Hondo, was chosen. About half a league from the river and not far from its source, on an elevation at the foot of which ran a creek whose waters could be used for irrigation, the Fathers determined to erect the mission buildings. Here a temporary chapel and other buildings were erected, the walls being of upright poles and the roofs of tules. The buildings were surrounded by palisades.

Father Serra was not present at the founding of this mission and did not visit it until September 11, 1772, when he stopped two days with the Fathers in charge, Somera and Cambon, while on his way to San Diego.

This site was found unsuitable and was finally abandoned three or four years later, the mission being moved to its present site about 1775. The present church building was completed about the year 1800 and stands now as the last remaining structure of the once extensive mission buildings.

A certain air of commerce haunts the place and, as one author puts it, "Excuses the thoughts of the money changers in the Temple." It is rather distressing to the sincere lover of the missions to be held up at the door for the small entrance fee, then admitted to a sales room, where he must wait amid two or three cart-loads of clap-trap souvenirs until enough fellow victims join him so that the parrot-like guide feels it worth while to make a hasty trip through the church.

The two guides who were on duty at the time of our visit repeated the same story nearly word for word and the lightest question on any point aside from the set speech brought a prompt, "I don't know." There was no welcome extended to the visitor and no real reverend feeling exhibited by anyone during the hasty tour. One can get much more of the mission atmosphere wandering alone through the ruins of San Antonio de Padua than on the guide-burdened rush through San Gabriel.

The church is built of bricks and has no special architectural features. The front is plain with an arched entrance, above which is a square window which lights the choirloft. The corners are strengthened with buttresses and a little more than half way up in each buttress is a niche in which a statue formerly stood. The front wall is carried up in a gable form between the two buttresses.

At the right of the front there may have been a bell tower. Signs of an attached construction show on the church wall and a pile of stones still remains on the ground, but I can find no mention of a tower nor of its destruction, which would probably have taken place in the great earthquake of 1812. The side walls of the church were strengthened and decorated with buttresses. The walls were carried above the roof line as parapets and

drainage was brought through them by spouts. I am inclined to believe the bell arches at the rear of the church are of more recent date, as would be natural if the bells were first hug in the tower at the front where they belong and were transferred to the rear when the tower fell. The present arches are irregular, seemingly made to fit the size of the bells to be mounted in them, and form a decorative feature of this part of the church. The wall in which these arches occur is an upward extension of the wall of thesacristy.

The interior of the church is rather plain. Entering the front door brings one under the choir loft. The entrance to the choir loft was not from the inside but by way of an outside stairway to the left as one faces the church. About half way down the left side of the church a doorway leads out of the nave. A street now runs through on this side of the nave and a sidewalk is built along the wall outside. Originally this may have been the side upon which the rooms of the Fathers stood. This would explain the location of the choir loft stairs where easy access could be gained from the quadrangle to the choir loft, and the door way in the side of the church saved walking around to the front when one wished to go from the quadrangle to attend services. A side door like this and an outside choir loft stairway will be found at the Mission San Luis Rey.

A doorway to the right of the Alter leads back to the sacristy and a door from the sacristy leads on back to the row of rooms where the visitor of the present day enters.

Over to the right of the church one can see the large brick vats where the tallow is said to have been refined and beyond that is the cemetery. I doubt if the original cemetery was located so far from the church; in the other missions it is generally located adjacent to the walls.

Altogether, the general air of rush and hurry, the feeling that you are being run through the mill to extract your dollar or so, that beyond this no interest is felt in you by those in charge, strikes the visitor plainly and he has to convince himself against these outer impressions that he stands in a house whose every brick was cemented to its neighbor with the love of mankind and personal sacrifice, as well as with plain mortar.

Mission San Antonio de Padua

Accompanied by Fathers Miguel Pieras and Buenaventura Sitjar, three sailors and some Lower California neophytes, Padre Serra left the Mission San Carlos de Borromeo early in July, 1771, and started out to found Mission San Antonio de Padua. A mule train loaded with the mission supplies, including the bells, followed under the charge of a corporal and six soldiers who were to constitute the mission guard.

Having proceeded some 25 leagues, the party arrived in a beautiful little valley of the Santa Lucia Mountains which they called Los Robles from the many oak trees which grew there. They camped on a stream which Padre Serra called Rio San Antonio.

It was on July 14 that a large cross was raised, blessed and venerated after the usual manner, and the first holy Mass was celebrated under a brushwood shelter. One of the natives attended this first service and others coming in soon afterward stirred the Fathers to greater efforts so that a chapel, dwelling and barracks were hastily constructed of palisades and surrounded with a stockade. After a stay of 15 days during which he instructed the fathers how to deal with the Indians, Padre Serra returned to Monterey, fathers Pieras and Sitjar remaining in charge..

The present walls are the third church built and date from about 1810. The original site was a mile or two to the east on the Rio San Antonio.

Walking around over the ground at San Antonio, one is astounded at the amount of work which has been done. The church itself is an enormous building but it represents only a part of the total labor which has been expended.

The church plan is that of a long building with the nave and sanctuary in one great room and a sacristy in the rear. This building was covered

with a gable roof of tiles. The walls were made of adobe. A facade and narthex made of burned brick were added to the front of the church, possibly at a little later date. This facade is the especially interesting feature of the church of San Antonio. It is as wide as the church front but is not as high. It is in effedt a very thick wall having three arched openings by which entrance is gained to the narthex. At each end, the facade is carried up into a bell arch and the wall is carried up in the center in a gable form where a third bell arch is provided directly over the great center arch of the entrance. The three entrance arches admit one to the narthex which has a great barrel vaulted brick arched roof spanning from side to side. The upper side of this arch was built in the form of a gable the better to shed the rain, but the roof was badly cracked and was allowing the rain to come through, so when the Landmarks club did some protection work several years ago, they put a wooden roof over this space between the front wall of the church and the facade.

From the narthex a single great arched doorway led into the church. Here, inside the church, the hand of time has dealt roughly and there is little left for the casual visitor to enjoy. In the years the interior was exposed to the elements much disintegration occurred and the over willing hand of the vandal has completed the work so that now all is ruined.

To the right, as one enters the church, a door way leads through the wall. Against the wall of the church, outside, was a lean-to construction,

remains of which show in the old pictures and traces of which can still be followed on the exterior walls. This room was probably the baptistry. About three-fourths of the way down the church room, on the right hand side, is an opening some six feet above the floor. This was the pulpit entrance and the wall on the outside indicates another lean-to room here. Underneath the opening will be seen the two beams projecting from the wall and upon these the floor of the pulpit was laid. In the back wall of the church room, at the right, a doorway leads into the sacristy. From this sacristy a door leads to the right into what seems to have been another lean-to structure. Another door to the left led out into the cloisters and must have been one of the principal entrances for the officiating priests coming in to the services. About midway down the left wall of the church room a large doorway opened out to the cloisters and this must have been the entrance used by those living and working in the quadrangle. Light fell through comparatively small windows placed rather high up in the walls. Even at noon-time the church would have had only a soft light.

At the back of the church room traces of the high Altar can still be seen and some candle grease and smoke on the plaster gave mute testimony that some of the local people still consider the place sacred.

The principal rooms of the fathers ran to the left as one faces the church. They were shaded in front by a long arcade, the arches of which, being made of burned bricks, still stand. The walls of the rooms, which were made of adobe, are now down in a confused mass of mounds so one can no longer tell the number of rooms nor their exact location. Toward the outer end of this row of rooms two burned brick arched vaults project above the debris,

each carrying a sort of square brick tank on its back. I think these might have been the wine vats and storage vaults. This row of rooms forms the front side of a quadrangle. The side and back rows of rooms can still be traced on the ground and the church building formed the fourth side. We might call this the "Padres Quadrangle" not with the idea that the fathers required so many rooms for their personal use, but that here the more important operations of the industries of which they were the head would be carried on, and here would be the quarters of those who held the more responsible positions.

This quadrangle had a colonnade on the church side and another along the rear of the front row of rooms. Here the fathers could rest in the heat of the day and here they could hold their court and settle the civil and religious which might have to come before them. The center of this quadrangle must have been given over to flower beds, shrubs and trees. One or two ancient pear trees yet stood in it at the time of our visit.

On the side of the church opposite this quadrangle was the cemetery and here hundreds of burials were made during the years the Padres were in charge.

Running to the right as one faces the church, there was a row of rooms some six hundred feet long. These rooms turned and ran forward nearly the same distance, turned again and ran back on the third side. This formed a great U shaped row of rooms, one bar of the U resting on the church and the plaza of the U lying in front of and to the right of the church. I think this may have been the rooms for the neophytes, and the general work shops and repair shops.

At some distance opposite the "Neophytes Plaza" if we may call it that, and on past the arcade in front of the padres rooms, was another complex group of rooms and walls which probably represent the stables, corrals, feed yards and general headquarters of the farm administration.

At a little distance from this last group of mounds is the site of the old mill. Water was brought from the hills through a ditch and stored in a reservoir over to the right of the church. This reservoir covers an acre or more of ground and was so well built that it is still used by the local people. From this reservoir a canal was led around the plaza of the neophytes and here at the mill site a drop of six or eight feet was obtained. All that is left of the mill is the brick lined bowl and shaft where the wheel was set and a great arched tunnel where the tail race discharged the water into another ditch leading out to the fields or, if it were not wanted for irrigation, to the river not far away.

The fields which the padres cleared and put under cultivation are still being cultivated and good crops were standing on them at the time of our visit.

Mission San Antonio de Padua is back off the beaten path of travel and one has to detour to get to it, but it well repays the time and trouble so expended and should not be overlooked by anyone who is really interested in the chain of California Missions. Its outstanding features, not duplicated elsewhere, are the peculiar facade and narthex and the construction at the site of the old mill.

By HELEN DuSHANE

THE JESUITS were the first Christian missionaries to gain a foothold in the lonely grandeur that is Baja California. They landed at present-day Loreto in 1697 with a few cows, pigs and chickens, and a great store of Jesuit zeal. Padre Juan María Salvatierra was the guiding spirit in this expedition which went on to establish a mission system that has evoked the admiration of historians past and present. For 70 years the Black Robes toiled in the midst of privation and hardship to leave the word of God with the Indians. They supervised the building of 21 missions and many visitas in the vicinity of Loreto, south around the tip of the peninsula and north along the coast of *El Gulfo de California*.

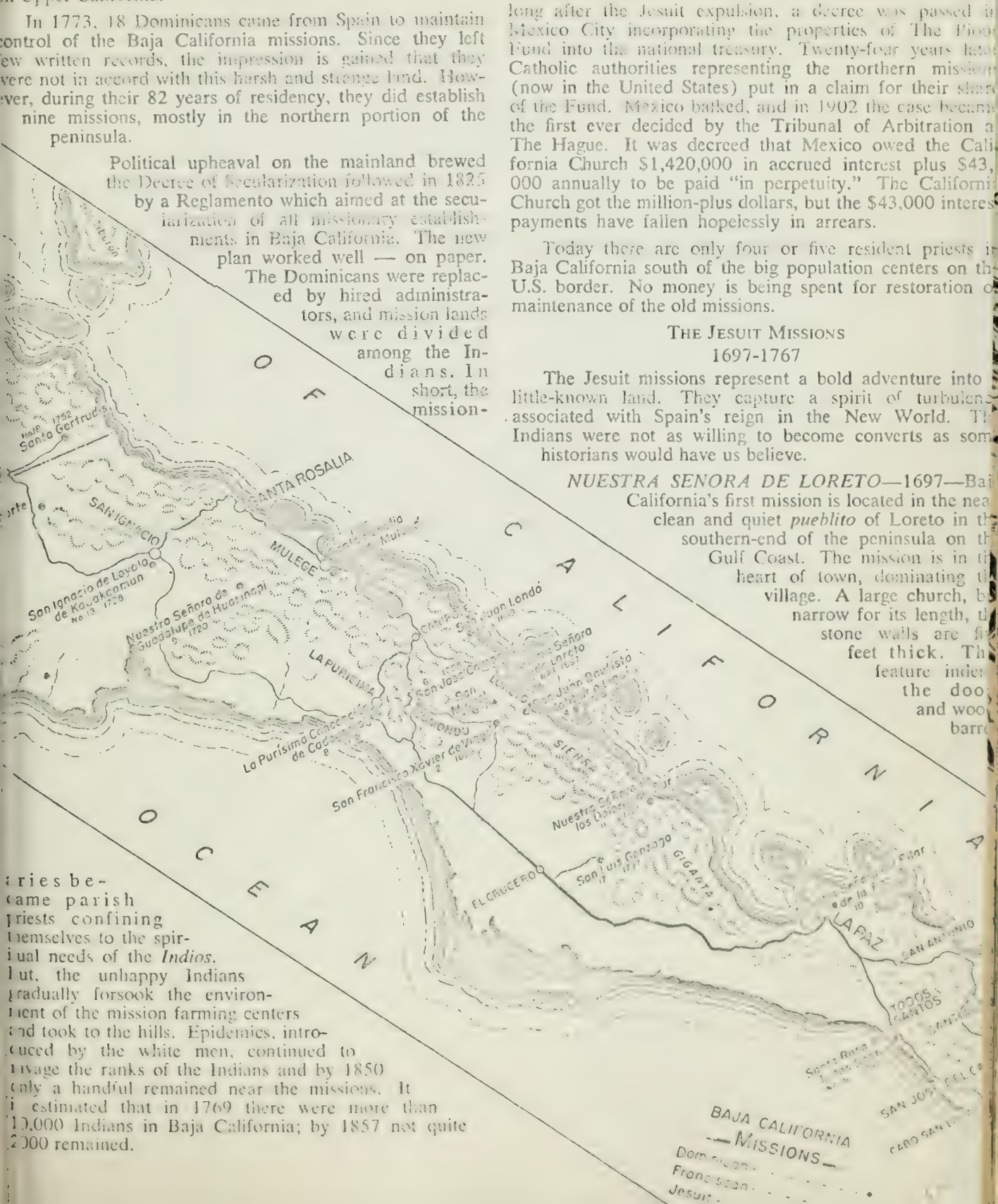
Partly because they toiled in innocence and partly because news from Europe came but rarely to so remote a part of the world, the Jesuits were astonished when they learned that enemies at home were playing politics behind their backs. In 1767 came the famous Decree by King Charles III of Spain expelling the Jesuits from the New World. History tends to indicate that jealousy on the part of people in Spain, fearing the Jesuits were developing too much power with the throne, and that they were becoming wealthy from concealed sources of revenue from mines and pearling, promulgated the unhappy decree. Be that as it may, there was no recourse. The Jesuits gathered at Loreto and sailed for the mainland, a disheartened and dispossessed group of men.

The Franciscans took over from the Jesuits. They arrived in Baja California in 1769, and during their brief tenure (five years) the course of missionary development changed. The peninsula's missions became stepping-stones to the advancement of Spanish control northward to Monterey. Long Jesuit contact had mediated Indian culture, and the Franciscans' problem was one mainly of [illegible] existing contacts. They established only one mission to [illegible] the southern part of Alta California, in 1773

hey were officially released from responsibility toward the Lower California missions to concentrate their attention on Upper California.

In 1773, 18 Dominicans came from Spain to maintain control of the Baja California missions. Since they left few written records, the impression is gained that they were not in accord with this harsh and strange land. However, during their 82 years of residency, they did establish nine missions, mostly in the northern portion of the peninsula.

Political upheaval on the mainland brewed the Decree of Secularization followed in 1825 by a Reglamento which aimed at the secularization of all missionary establishments in Baja California. The new plan worked well — on paper. The Dominicans were replaced by hired administrators, and mission lands were divided among the Indians. In short, the mission-



ries became parish priests confining themselves to the spiritual needs of the *Indios*. But, the unhappy Indians gradually forsook the environment of the mission farming centers and took to the hills. Epidemics, introduced by the white men, continued to ravage the ranks of the Indians and by 1850 only a handful remained near the missions. It is estimated that in 1769 there were more than 10,000 Indians in Baja California; by 1857 not quite 2,000 remained.

As early as 1697 the Jesuits collected considerable sums of money, known as The Pious Fund, for the establishment of missions in all of the Californias. In 1842, long after the Jesuit expulsion, a decree was passed in Mexico City incorporating the properties of The Pious Fund into the national treasury. Twenty-four years later Catholic authorities representing the northern missions (now in the United States) put in a claim for their share of the Fund. Mexico balked, and in 1902 the case became the first ever decided by the Tribunal of Arbitration at The Hague. It was decreed that Mexico owed the California Church $1,420,000 in accrued interest plus $43,000 annually to be paid "in perpetuity." The California Church got the million-plus dollars, but the $43,000 interest payments have fallen hopelessly in arrears.

Today there are only four or five resident priests in Baja California south of the big population centers on the U.S. border. No money is being spent for restoration or maintenance of the old missions.

The Jesuit Missions
1697-1767

The Jesuit missions represent a bold adventure into little-known land. They capture a spirit of turbulence associated with Spain's reign in the New World. The Indians were not as willing to become converts as some historians would have us believe.

NUESTRA SENORA DE LORETO—1697—Baja California's first mission is located in the neat clean and quiet *pueblito* of Loreto in the southern-end of the peninsula on the Gulf Coast. The mission is in the heart of town, dominating the village. A large church, but narrow for its length, the stone walls are five feet thick. The feature inde the doo and woo barre

Sept. 1960, pp. 32-39

THE MISSIO

By HELEN DuSHANE

THE JESUITS were the first Christian missionaries to gain a foothold in the lonely grandeur that is Baja California. They landed at present-day Loreto in 1697 with a few cows, pigs and chickens, and a great store of Jesuit zeal. Padre Juan Maria Salvatierra was the guiding spirit in this expedition which went on to establish a mission system that has evoked the admiration of historians past and present. For 70 years the Black Robes toiled in the midst of privation and hardship to leave the word of God with the Indians. They supervised the building of 21 missions and many visitas in the vicinity of Loreto, south around the tip of the peninsula and north along the coast of *El Gulfo de California*.

Partly because they toiled in innocence and partly because news from Europe came but rarely to so remote a part of the world, the Jesuits were astonished when they learned that enemies at home were playing politics behind their backs. In 1767 came the famous decree by King Charles III of Spain expelling the Jesuits from the New World. History tends to indicate that jealousy on the part of people in Spain, fearing the Jesuits were developing too much power with the throne, and that they were becoming wealthy from concealed sources of revenue from mines and pearling, promulgated the unhappy decree. Be that as it may, there was no recourse. The Jesuits gathered at Loreto and sailed for the mainland, a disheartened and dispossessed group of men.

The Franciscans took over from the Jesuits. They arrived in Baja California in 1769, and during their brief tenure (five years) the course of missionary development changed. The peninsula missions became steppingstones for the advancement of Spanish control northward to Monterey. Long Jesuit contact had modified Indian culture, and the Franciscans' problem was one primarily of maintaining control. They established only one mission to bridge the gap between the central portion of Baja Cali-

ey were officially released from responsibility toward the ower California missions to concentrate their attention ı Upper California.

In 1773, 18 Dominicans came from Spain to maintain ntrol of the Baja California missions. Since they left w written records, the impression is gained that they ere not in accord with this harsh and strange land. How- er, during their 82 years of residency, they did establish nine missions, mostly in the northern portion of the peninsula.

Political upheaval on the mainland brewed the Decree of Secularization followed in 1825 by a Reglamento which aimed at the secularization of all missionary establishments in Baja California. The new plan worked well — on paper. The Dominicans were replaced by hired administrators, and mission lands were divided among the Indians. In short, the mission-

ries be- ime parish iests confining emselves to the spir- ual needs of the *Indios*. at, the unhappy Indians adually forsook the environ- ent of the mission farming centers id took to the hills. Epidemics, introduced by the white men, continued to vage the ranks of the Indians and by 1850 ly a handful remained near the missions. It estimated that in 1769 there were more than 1),000 Indians in Baja California; by 1857 not quite 2 00 remained.

As early as 1697 the Jesuits collected considerable sums of money, known as The Pious Fund, for the establishment of missions in all of the Californias. In 1842, long after the Jesuit expulsion, a decree was passed in Mexico City incorporating the properties of The Pious Fund into the national treasury. Twenty-four years later Catholic authorities representing the northern missions (now in the United States) put in a claim for their share of the Fund. Mexico balked, and in 1902 the case became the first ever decided by the Tribunal of Arbitration at The Hague. It was decreed that Mexico owed the California Church $1,420,000 in accrued interest plus $43,000 annually to be paid "in perpetuity." The California Church got the million-plus dollars, but the $43,000 interest payments have fallen hopelessly in arrears.

Today there are only four or five resident priests in Baja California south of the big population centers on the U.S. border. No money is being spent for restoration or maintenance of the old missions.

The Jesuit Missions
1697-1767

The Jesuit missions represent a bold adventure into a little-known land. They capture a spirit of turbulence associated with Spain's reign in the New World. The Indians were not as willing to become converts as some historians would have us believe.

NUESTRA SENORA DE LORETO—1697—Baja California's first mission is located in the neat, clean and quiet *pueblito* of Loreto in the southern-end of the peninsula on the Gulf Coast. The mission is in the heart of town, dominating the village. A large church, but narrow for its length, the stone walls are five feet thick. This feature indents the doors and wood-barred

ONE-TOWER OF SANTA ROSA DE TODOS SANTOS IS TYPICAL OF EARLY IAL ARCHITECTURE. EXTERIOR LADDER IS USED TO REACH THE 'S FIRST LEVEL, FROM WHICH OTHER LADDERS LEAD TO HEIGHTS ABOVE.

windows, giving the edifice a solid appearance. The hand-hewn cedar timbers were cut and dragged down from the mountains by oxen. A narrow stairway leads through the choir loft and up to the bell tower whose bells are worn thin at the rim surfaces. They bear the date 1743. Originally, the altar was lavish with silver candelabra and a golden chalice. The statue of the Virgin was clothed in silks, lace and a tiara of pearls. Most of the ornamentation has been removed and today Loreto Mission is but a shell. However, it still retains an aura of historical significance and is well worth visiting.

SAN FRANCISCO XAVIER DE VIGGE—1698—In a narrow canyon inland from Loreto the Jesuits Picolo and Ugarte established the second and perhaps the most famous of the missions. Other missions have had reconstruction, rehabilitation and restoration until one wonders how much of the original remains. Not so with Xavier. It stands today as it has since it was built. Spectacular sheer black lava-cliffs rising hundreds of feet form a backdrop for the Moorish-Romanesque style mission buildings. The white dome of the bell-tower offers stark relief against the somber heights of La Sierra Giganta.

cut into its stone archway, undoubtedly the date when the church was completed. The interior of the mission is vaultlike but well-lighted by Baja California's first glass windows. The three gold-leaf altars were shipped in 32 crates from Mexico and reassembled. In the center of the main altar stands a life-size statue of San Francisco Xavier. Bending forward slightly, as if to place his benediction upon all who enter, he is surrounded by eight life-size oil paintings. The side-altars each have heavy gilt frames for six smaller paintings. It has been said that each painting is worth $10,000. The east altar was desecrated of four paintings, but the statues from Spain and the Stations of the Cross are intact.

The mission had a library of several hundred volumes, and artisans were brought here from Spain to teach weaving and wood-carving to the Xavier *Indios*. This mission probably attained a degree of culture far in advance of most others on the peninsula. Xavier was always fortunate in having a resident priest of exceptional vigor and culture.

Because of its excellent workmanship, San Xavier has withstood the ravages of time better than the other missions. Few travelers go out of their way to visit here. Until such time that an engineered road reaches this spot, the mission will stand aloof and alone, guarded by the sheer lava walls and the handful of natives who do not realize what historical wealth they possess. Although the road to it is rocky and somewhat dangerous, it is the most desirable of the missions to visit.

SAN JUAN LONDO—1699—Situated a few miles north of Loreto on the Gulf, this was the first visita established in Baja California. (A visita is a visiting station and not a true mission although sometimes included in historians' lists because services were held for the Indians at these place.) No vestige of the early building remains.

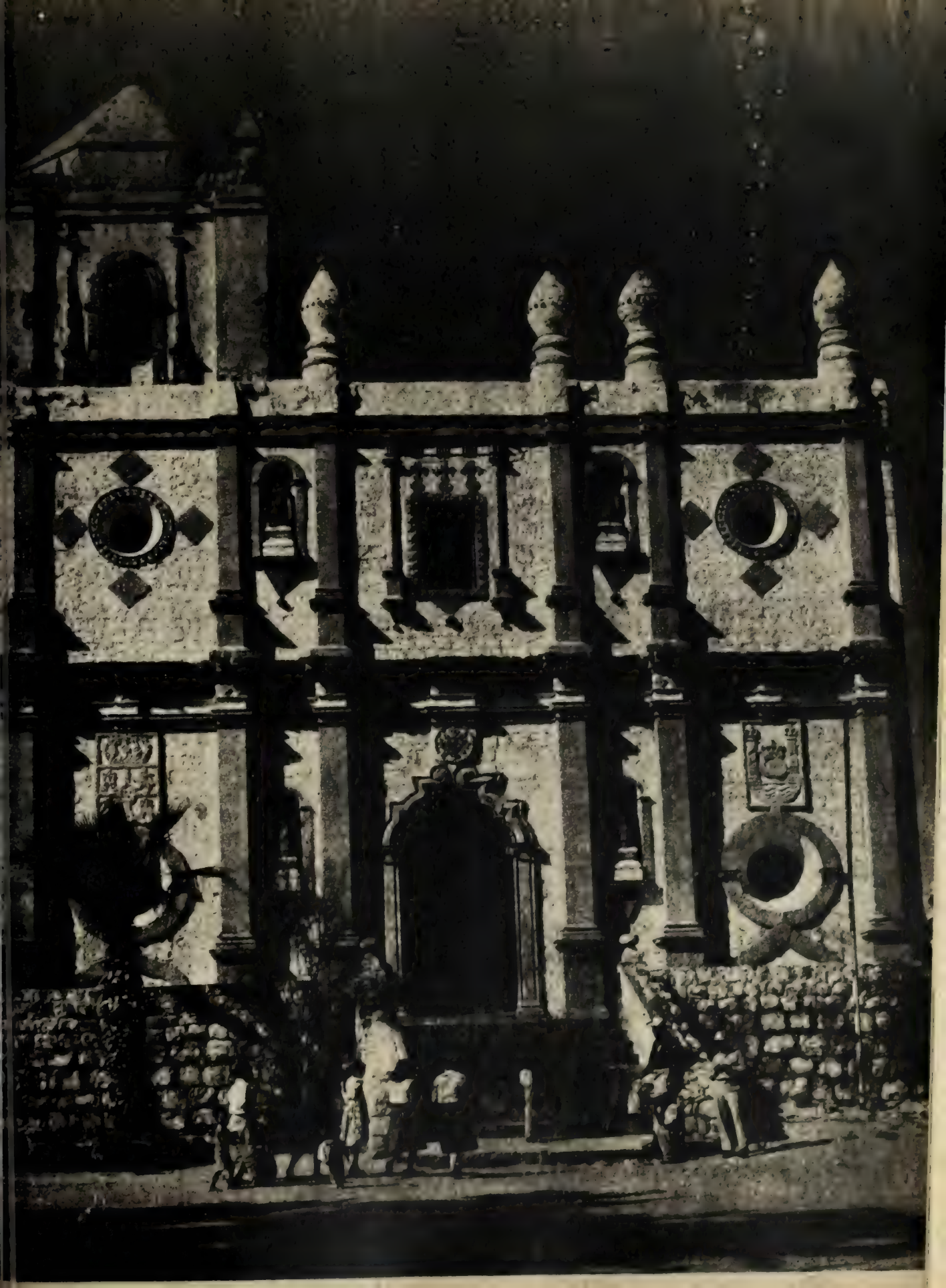
SAN JUAN BAUTISTA MALIBAT O LIGUI—1705—This small mission was established on the Gulf coast south of Loreto. Because of epidemics and repeated attacks from the Gulf Island Indians, the natives were finally removed in 1721 to a more southerly mission, Nuestra Senora Dolores del Sur, and Ligui ceased to exist.

SANTA ROSALIA DE MULEGE — 1705 — Situated a short distance west of the Gulf on a most lush and beautiful section of the peninsula, the partially white-washed mission of Moorish architectural influence is built on an eminence with the *pueblito* of Mulege at its feet. The sturdy lava-rock construction is cemented together by a mixture of lime and sand. It is said the precise directions for making this mixture have been lost, but the ancient lime kiln still stands behind the mission, its rotund brown belly looking like that of a very fat friar.

At Mulege, in 1721, Padre Ugarte had his famous bark, *Triunfo de la Cruz*, built by native labor. This boat carried him and his crew on a voyage of exploration to the mouth of the Colorado River. There he discovered that California was not an island as had been thought earlier.

A resident priest is eager to show *turistas* throug

SAN IGNACIO DE LOYOLA DE KADAKAAMAN IS THE MOST GRAPHED AND—IN THE OPINION OF THE AUTHOR—THE MOST FUL MISSION IN BAJA CALIFORNIA. SAN IGNACIO SHOWS ITS ARCHITECTURAL INFLUENCE IN THE TURRETS ATOP THE



veling. This mission is a must for the travelers who
e their missions in a tropical paradise.

JOSE COMONDU—1708—Halfway between the
acific Ocean and the Gulf, the mission is built in a
ep canyon on whose narrow floor is massed a be-
ldering array of semi-tropical fruits and flowering
ees. The mission is severely plain on the outside and
rdly less so inside. It is a dim, mysterious and mouldy
tle place of mud-plastered walls and scant elegance.
is as if all the gold and gawdiness and fervor had gone
t with the snuffed candlelight when the priests left.
cracked holy water font of onyx lay tipped on its side
hen I entered this church on my last visit. Except for
natural setting and the fact it is on the Camino Real,
e mission has little to offer the traveler.

figuel—1714—Although listed as a mission by some
storians, this was a visita created by Ugarte after
severe drouth burned his corn fields at nearby San
avier. It was never more than a ramada for shelter
d prayer in a side-canyon close to the main mission.

URISIMA CONCEPCION DE CADEGOMO —
18—In the heart of the sierra along the banks of

THE ROOF OF SAN XAVIER, LOOKING DOWN ON VIGGE'S ONLY STREET

were raised and much cattle roamed the countryside. With time, the thatched roof has fallen in. The sidewalls, too tired to carry on, sag heavily. The rectangular doorway and lintel still support two pedestals between which is the Catholic insignia in bas-relief. The road to Cadegomo is treacherously rocky. Except for the beauty of its site, there is little to see today.

NUESTRA SENORA DE GUADALUPE DE HUASINAPI — 1720 — Northwest and inland from Mulege this small mission was established as a steppingstone to the northern missions. Plagued by locusts, the mission was never able to raise enough crops to support itself, and in 1795 it was closed. From this site came the timbers for the first ship built in California, Ugarte's *Triunfo de la Cruz*, which carried him to the northern reaches of the Gulf. At one time this mission had three Visitas, Concepcion, San Miguel and San Pedro y San Pablo.

NUESTRA SENORA DEL PILAR DE LA PAZ—1720 —Situated in what is now the quiet little city of La Paz, the original mission was abandoned before 1768 because there were not enough natives to justify maintaining it any longer. The present pink mission (built in 1865) faces the plaza and the Governor's Palace and dominates the scene today. Although it is a very young mission, it is so accessible no Baja California traveler should miss it. An interesting little story is associated with this mission. The Reglamento of 1825 decreed that no priest should appear in public wearing a habit. One day the local padre broke the decree while on an errand and was promptly placed in jail. The good ladies of La Paz immediately brought their forces to focus on the problem by prostrating themselves in the street in front of the church. They refused to budge until the priest was released!

NUESTRA SENORA DE LOS DOLORES DEL SUR—1721—Situated along the southern shores of the Gulf, Mission Dolores del Sur remains today in name only. A monthly ship from La Paz supplies the needs of a few families. No traversable road leads to the site.

SANTIAGO DE LOS CORAS—1723—Located at the end of the peninsula, the adobe walls of this mission are melting back into the earth from whence they came. Perhaps it is just as well for this spot marks the place where the belligerent Pericue Indians attacked Father Carranco, beat him to death and then burned his body. Nothing is left to show the viciousness of the attack; today the countryside is peaceful and wide with an occasional pink adobe marking the site of a lonely ranchito.

SAN IGNACIO DE LOYOLA DE KADAKAAMAN—1728—In the center of the peninsula, on the Camino Real, this mission village lies in a well-watered canyon. Hidden by tall palms, the twin spires of the mission reach for the sky. The Moorish building is a pink and white confection that looks good enough to eat—the more so because of its tropical setting. The villagers are inordinately proud of their mission. Of cut lava-rock with walls four feet thick and a stupendous stone arched ceiling, its preservation reflects their loving care. It is still used daily. The most photographed mission on the peninsula, I believe it is also the most beautiful.

DOLORES DEL NORTE—1728—Situated just north of San Ignacio and with no road leading to it, the mission is in ruins.

SAN JOSE DEL CABO—1730—Baja California's most

The original altar at Descanso as it appears today. Mission church was built in 1817, 31 miles south of Tijuana.

La Sierra Giganta forms a bleak backdrop for San Xavier Mission, the most remote and inaccessible of the peninsula missions.

Sunlight streams through the ruined roof of the last original building remaining at Nuestra Senora Del Rosario, the first Dominican Mission.

The faded blue San Xavier doorway leads to the mission interior which is complete en to the altar linens.

Adobe walls of Mission San Miguel Fronteriza, built in 1817, are slowly melting back into the earth

me. Ravaged time and again by *chubascos* (Gulf rms), it has been rebuilt many times. The long rrow building is supported by buttressed side-columns. e facade is broken only by the stone-faced doorway d an arched bell tower with niches for three bells. ith its mild climate and fresh-water *estero,* the hilly rain is an ideal setting for this lovely mission.

A ROSA DE TODOS SANTOS—1735—Built in a rden spot of towering mango and avocado trees on Pacific side of the peninsula, this magnificent mis- n appears today much as it did when the Jesuits ected it. The mission is in the center of a thriving mmunity. Roses and various foliage plants, enclosed a tile wall, make the entrance to this mission most iting. This is a well-kept edifice, with services held gularly at the ringing of its original bells. It has been estored" with a clock on the bell tower—an unfor- nate defacement of the simplicity and beauty of the ver. Whitewashed, and with a tile roof, the building lects the care it has had. Its lovely interior has a le nave and much gold-leaf on the wooden statues. e square-tiled floor is worn rough from the feet many devout Catholics.

LUIS GONZAGA—1737—Placed in the center of lower-third of the peninsula, for many years this ssion was home to the Jesuit Johann Jakob Baegart. om here he sent letters to his brother in Germany ich proved to be a valuable source of information future historians. Oddly, this is the only Jesuit mis- n with two bell towers. The church today looks y much as it did when built except for the removal the bells from the towers. The facade has been itewashed, offering a pleasing contrast to the raw a and limestone construction of the remainder of church. This mission is difficult to reach but is rth the effort because of its historical significance d fine state of repair.

A GERTRUDIS—1752—This mission is in the ter of the peninsula in a canyon so narrow that a lf of earth had to be laid on which to erect the ne church. The first wine made in the Californias s fermented here in huge stone vats. A few palm s cast shade on the walls of the tiny chapel, its ned outbuildings and reservoir.

FRANCISCO DE BORJA—1759—Inland from the lf is this weather-worn mission with a pock-marked ade of tufa. The Duchess de Borgia made the ginal endowment for this church, with the stipula- n that it be placed in an isolated location. The ission was never completed. The local Indians were ncherous and the last padre lost his life when a chimi dropped a boulder on his head. Located inst the side-wall of a mesa, Borja is well worth a t if only to admire its massive hand-hewn timbers d stone ceiling. In the belfry swing two copper bells.

SAMAGUE—1766—On the Gulf side, this mission is about which there is speculation and wonder. Why the persevering and usually discerning Jesuits ose such an unlikely spot? The water's alkalinity le it unfit to drink or to irrigate crops. A few ps of adobe show where the mission once stood.

SANTA MARIA DE LOS ANGELES — 1767 — Inland on the Gulf, this last Jesuit mission is the only one t of both adobe and stone. Isolated little Santa ria has been prey to treasure seekers ever since a *ero* uncovered an *olla* of gold pieces while resting he shade of its walls. Built in loneliness and sur-

Two modern Baja California churches are pictured on these facing pages. At the left is the church at El Triunfo. The town was a prosperous silver producer a century ago, but today it is almost a ghost town. At the right is the new church at Santiago. Little is left of the original Santiago De Los Coras Mission where the Pericue Indians killed the padre.

rounded by more of the same, the ruins of this aloof mission offer little reason for being visited.

The Franciscan Mission
1769-1773

The Franciscan order built but one mission in Lower California. The padres arrived with orders to maintain old missions and establish new ones to serve as supply points for those further north.

SAN FERNANDO DE VELICATA — 1769 — The lone Franciscan mission is situated inland in the northern-third of the peninsula. It overlooks a *cienega* a quarter-of-a-mile long with willows and rushes crowding its margins. It was here that Father Serra rested and gathered strength to fulfill his dream of a chain of missions northward in Alta California. Although we are told the church faced the southwest, it is extremely difficult now to trace the outlines of the disheveled old walls. The only remnant worthy of note at Velicata is the stone-lined irrigation ditch.

The Dominican Missions
1773-1854

Since the Dominicans left few written records, and did

trouble to roof their missions with baked-tile, one not help but have the impression that their hearts were in accord with their instructions to "build enduringly." s of the rush roofs invariably spelled ruin to their mis-ns, for their adobe contained no bitumen to turn the

Of the nine missions erected by the Dominicans, only gh remains of two to make visits to them worthwhile.

STRA SENORA DEL ROSARIO—1774—The first ission established by this order is located near the acific coast. Fertile river bottom fields are glimpsed rough great holes in the mission walls, situated on bank overlooking the broad watercourse. One de-epit building, with the sun streaming through holes the roof, houses a few insignificant trivia of Catholi-sm. The outlines of what must once have been a eat central plaza are still discernible. The *cemetario* of interest. The faded paper-mache garlands on the lobe tombs testify to continued interest on the part the local residents. The loyal have contributed to fund with which they have built a small modern urch, the original mission bells hanging alongside it. e bell is missing—sold to the tiny parish of San idro, northeast of San Diego, when the *pueblito* was financial difficulty. There is no resident priest.

O DOMINGO—1775—In a tiny canyon with ver-al cliffs stands this ruined mission. Thirty years ago buildings were intact, with drawnwork altar cloths wooden saints, just as the Dominicans had left m. The bells hung from a wooden crosspiece in nt of the mission. The faithful had a superstition that as long as the bells were there, peace and health would dwell in their tiny *pueblito*. One night in 1930 the bells were stolen. Immediately, several of the older residents fell ill and some even died. Today, the still-useful adobe corral and a small chapel may be seen.

Visiting the *cemetario* we discovered a new head-stone, that of an old friend, Antonio Martorel, who knew not when he had been born beyond the fact that he was *ochenta mas*—"more than eighty." Whether by accident or ignorance, the headstone had "1965" carved on it. Time means so little to these people one can only be left to wonder if the stone cutter had really thought it was the year 1965.

This is a mission to visit if only to share with the friendly people the feeling of serenity present in the remote little canyon.

SAN VICENTE FERRER—1780—In northern Baja California stand the roofless walls of this mission. This was one of several areas where the Indians were particularly belligerent, although the Mexicans one meets here now are friendly and cooperative. Only those who are interested in visiting all possible sites will want to see this one.

SANTO TOMAS DE AQUINO—1794—The mission site is on the far side of a broad valley a short distance south of Ensenada. Tall palms whisper in the breeze as if trying to tell secrets of past life here. The tumbled earthen walls of a small outbuilding overlook a vineyard whose fruits have established the *Vino de Santo Tomas* as a repeated gold-ribbon winner in Spain. So even now the farsightedness of the early priests give work to many *bajaneros*.

SAN PEDRO MARTYR DE VERONA—1794—Situated on the huge backbone of the Sierra de San Pedro Martyr, whose peaks reach 10,000 feet into the sky, is the site of this mission. It is accessible only on muleback and very little remains to appeal to a traveler.

SANTA CATARINA MARTYR — 1797 — Deep in the heart of the Sierra de Juarez stands a low ridge of adobe—all that remains of this mission. A handful of Santa Catarina Indians live at a *rancheria* close by, grateful for the ministrations of a priest who comes here once every two years.

SAN MIGUEL FRONTERIZA—1817—In the northern section of Baja California, on the brink of a gaping canyon, is the site of what was once a flourishing mission. The melting adobe walls can be seen as one climbs the grade from the canyon bottom on the road to Ensenada.

DESCANSO—1817—This mission is only 31 miles south of Tijuana. It is in a small valley just left of the Camino Real. It has the unique distinction of having had what appears to be a fort on a nearby hilltop. The mission buildings have been in ruins for years. Recently the local people have taken an interest, and bit by bit, as time and money permit, the old building is being rebuilt. Fortunately, the original altar has been preserved with all the beauty of aged wood and faded blue paint. The surrounding grounds are pitted with the holes of treasure seekers and archeologists.

GUADALUPE—1834—In a broad valley at the northern end of the peninsula is the site of the last Dominican mission. It is odd that the most recent mission leaves absolutely nothing for the traveler to see. A few bed-rock mortars indicate where most of the *Indios* had their *rancheria* from which the good fathers drew their neophytes. ///

UNION OF CHURCH AND STATE IN NEW SPAIN

Zephyrin Engelhardt, O.F.M., writing of difficulties between Father Serra and the Governor of California ("Mission San Carlos Borromeo"):
p. 84

"In consequence of the close union of the State and Church under the Spanish dominion, which for the Church was really a sort of slavery, the Pope could not exercise any authority in religious matters without the permit of the king. For instance, any address or document from the Pope to a Spanish Bishop had first to be submitted to the king for approval and signature. Thus the document which authorized the College of San Fernando, Mexico, to designate a member to exercise the power of administering the Sacrament of Confirmation, had to have the Pase or Permit of the king. It then went to the viceroy for his permit or approval added to the original of the Pope. It then was turned over to the College, which retained the document and sent Fr. Serra a copy only with directions to exercise the powers granted. Fr. Serra never saw the document or Papal Bull.

"When Neve heard that Fr. Serra was administering Confirmation, he demanded to know by what authority the Fr. Presidente administered the Sacrament of Confirmation. He wanted to see the Bull of the Pope to make sure it bore the signature of the king and of the Comandante-General. . . Fr. Serra was moreover warned that he should desist from confirming till the required document was presented. Thus it came to pass that Fr. Serra, to avoid any scandal or allow the Indians to believe that the Governor had any authority over him in ecclesiastical matters, refrained from visiting the Missions for over a year, because he would create wonderment if he did not confirm also."

FORM 10-23
(Rev. Oct. 61)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

New Mexico
(Park or Office)

FILE NUMBER OR SUBJECT:

PLEASE RETURN THIS FILE PROMPTLY TO

(Activity)

IMPORTANT

This file constitutes a part of the official records of the ional Park Service and should not be separated or papers hdrawn without express authority of the official in charge. Officials and employees will be held responsible for ure to observe these rules, which are necessary to pro- the integrity of the official records.

FROM _____
(Date)

TO _____
(Date)

OC 65-13795

Thwaites--Vol. 19
(Pub. in 1845. first)

Chapter VIII

New Mexico Missions

Tradition speaks of numerous and productive mines having been in operation in New Mexico before the expulsion of the Spaniards in 1680; but that the Indians, seeing that the cupidity of the conquerors had been the cause of their former cruel oppressions, determined to conceal all the mines by filling them up, and obliterating as much as possible every trace of them. This was done so effectually, as is told, that after the second conquest (The Spaniards in the mean time not having turned their attention to mining pursuits for a series of years), succeeding generations were never able to discover them again. Indeed it is now generally credited by the Spanish population, (183) that the Pueblo Indians, up to the present day, are acquainted with the <u>locales</u> of a great number of these wonderful mines, of which they most sedulously preserve the secret. Rumor further asserts that the old men and sages of the Pueblos periodically lecture the youths on this subject, warning them against discovering the mines to the Spaniards, lest the cruelties of the original conquest be renewed towards them, and they be forced to toil and suffer in those mines as in days of yore. To the more effectual preservation of secrecy, it is also stated that they have called in the aid of superstition, by promulgating the belief that the Indian who reveals the location of these hidden treasures, will surely perish by the wrath of their gods.

Playing upon the credulity of the people, it sometimes happens that a roguish Indian will amuse himself at the expense of his reputed superiors in intelligence, by proffering to disclose some of these concealed treasures. I once knew a waggish savage of this kind to propose to show a

valley where virgin gold could be 'scraped up by the basketful.' On a bright Sunday morning, the time appointed for the expedition, the chuckling Indian set out with a train of Mexicans at his heels, provided with mules and horses, and a large quantity of meal-bags to carry in the golden stores; but, as the shades of evening were closing around the party, he discovered--that he couldn't find the place.

It is not at all probable, however, that the (164) aborigines possess a tenth part of the knowledge of these ancient fountains of wealth, that is generally attributed to them; but that many valuable mines were once wrought in this province, not only tradition but authenticated records and existing relics sufficiently prove. In every quarter of the territory there are still to be seen vestiges of ancient excavations, and in some places ruins of considerable towns evidently reared for mining purposes.

**(Footnote: Very few mines were opened in New Mexico under the Spanish regime, and almost none before the Indian revolt of 1680. An official report of 1795 states that not a single mine of gold or silver had ever been worked in the territory, and that all the plate required for the services of the church was imported at considerable cost from Mexico.--ED.)

Among these ancient ruins the most remarkable are those of La Gran Quivira, about 100 miles southward from Santa Fe.

**(Footnote: The myth of "La Gran Quivira" is comparable to that of "El Dorado" in South America. Coronado's march (1540) was undertaken in search of a mythical Quivira. Much later the myth attached itself to the place which Gregg describes--a series of ruins in northeastern Socorro County, on a desolate mesa one hundred and fifty miles south of Santa Fe. Search for fabulous hidden treasure has been conducted there for many years. Reports of modern archaeologists, notably those of A. F. Bandelier, have proved that the city which Gregg describes was a pueblo of the Piros Indians, commonly known as Tabira. This was first visited by the Spaniards in 1581; it rendered submission to Onate in 1598, and later a priest was assigned thereto. This mission was founded in 1628, and the first church built. In 1644 a new and larger church and convent were begun, which constitute the largest of the ruins. These are not of hewn stone, but of slabs

of sandstone fastened with adobe mortar, formed with Spanish tools. The site was abandoned between 1670 and 1675, because of Apache raids. The problem of the water supply was solved by the discovery of artificial reservoirs near the pueblo. Consult A. F. Bandelier, in THE NATION, xl, pp. 348, 365; Archæological Institute of America Papers, American series, iv, part ii, pp. 292-291; Charles F. Lummis, THE LAND OF POCO TIEMPO (New York, 1893), chap. xi.--ED.

This appears to have been a considerable city, larger and richer by far than the present capital of New Mexico has ever been. Many walls, particularly those of churches, still stand erect amid the desolation that surrounds them, as if their sacredness had been a shield against which Time dealt his blows in vain. The style of architecture is altogether superior to anything at present to be found north of Chihuahua--being of hewn stone, a building material wholly unused in New Mexico. What is more extraordinary still, is, that there is no water within less than some ten miles of the ruins; yet we find several stone cisterns, and remains of aqueducts eight or ten miles in length, leading from the neighboring mountains, from whence water was no doubt conveyed. And, as there seem to be no indications whatever of the inhabitants' ever having been engaged in agricultural pursuits, what could have induced the rearing of a city (165) in such an arid, woodless plain as this, except the proximity of some valuable mine, it is difficult to imagine. From the peculiar character of the place and the remains of the cisterns still existing, the object of pursuit in this case would seem to have been a placer, a name applied to mines of gold-dust intermixed with the earth. However, other mines have no doubt been worked in the adjacent mountains, as many spacious pits are found, such as are usually dug in pursuit of ores of silver, etc.; and it is stated that in several places heaps of scoria are still to be seen.

By some persons these ruins have been supposed to be the remains

of an ancient Pueblo or aboriginal city. That is not probable, however; for though the relics of aboriginal temples might possibly be mistaken for those of Catholic churches, yet it is not to be presumed that the Spanish coat of arms would be found sculptured and painted upon their facades, as is the case in more than one instance. The most rational accounts represent this to have been a wealthy Spanish city before the general massacre of 1680, in which calamity the inhabitants perished--all except one, as the story goes; and that their immense treasures were buried in the ruins. Some credulous adventurers have lately visited the spot in search of these long lost coffers, but as yet none have been found.

**(Footnote: In the same vicinity there are some other ruins of a similar character, though less extensive; the principal of which are those of Abo, Tejique and Chililli. The last of these is now being resettled by the Mexicans.--Gregg Comment by Ed. The last of these pueblo ruins is in southeastern Sandoval County; the first two in Valencia. Abo is of Piros origin, with a history similar to that of Tabira (uivira). Tejique and Chililli were Tigua pueblos built near the salines, probably in the seventeenth century, and abandoned before 1680 because of Apache raids. The modern village of Chililli is founded on a grant made in 1841.)

hardly a cloud passes the mountains that does not shower upon it either rain, snow, or hail. From what we have observed during our second visit to this place, this Rotary Day of New Mexico, we have concluded that our former estimate of the character of the inhabitants was premature and ill-judged; we now believe that there is not one single redeeming trait of disposition or habits to be found within its borders.

Friday, December 23, 1904.

Our course to-day was about N. 10° W., and lay along the eastern slopes of the Sierra de la Tetilla. We fixed a rear-station for nearly the whole forenoon, and were therefore unable to observe much about the features of the country. Six miles 726 yards from Tetilla we passed a small mountain stream running towards the east—a cane brook, that is open last in the ground. On this there is a little village called Torreon. Two miles, 1,181 yards further north we passed another similar brook, and another small town called Tecolpa. From this last place, over a rolling, broken, and well timbered country, we reached to a small basket called Chilili. This town, like Torreon and Tecolpa, is situated upon a pure rivulet, running from the mountains to the open plains towards the west. Here we encamped in the snow, and suffered much during the whole night from a cold wind from the north.

Saturday, December 24, 1904.

This morning, before we left camp, an old Mexican brought us some ore, which he said is to be found in great abundance near the Tetilla Peaks, but that it is now covered so deeply in the snow as to be difficult to be procured. We believe the specimen he gave us contains silver. When the snow has melted, it will be worth the trouble, perhaps, to explore these

mountains thoroughly, with a view to the discovery of precious metals.

After travelling north for about two miles this morning, we turned off toward the west, by a road that leads to Albuquerque by the Canon del Infierno. As we ascended the western slope of the mountain, we passed through extensive groves of large pine-trees, suitable for boards and other building purposes. The snow was a foot in depth, and the air dry and cold, as in mid-winter in the extreme north. The Canon del Infierno is 10 miles 330 yards in length. It is very circuitous. The mountains rise abruptly thousands of feet above it on either hand. This makes it a pass of great ruggedness, as well as of a wild and picturesque beauty. Half-way down through it we came to a fine spring of water. The rocks are the same stratified, fossiliferous limestone, which we saw at Los Puertos de Abo. From the mouth of the Canon del Infierno to Albuquerque, the road descends through an open prairie, entirely destitute of water for the whole distance, which is 20 miles 400 yards.

We arrived at Albuquerque at 2 o'clock in the evening, having marched to-day 36 miles 317 yards.

has split to expose a very dry interior. The seeds are white, in contrast to the brown seeds of a normal fruit. The production of such an anomaly has prooved too much of a strain for the young pad. It's strength has been sapped and since about August15th it has started to wither and fade.

The other peculiar growth noted on this cactus was an exact opposite of the one just described. A small joint started growing from the flat upper surface of an immature ovary. The pad never reached the stage where it's leaves were formed into spines. During June both ovary and new joint gave up the ghost and fell from the plant.

****

CARLETON'S DIARY - 1853

DIARY

Of an excursion to the ruins of Abo, Quarra, and Gran Quivira, in New Mexico, under the command of

MAJOR JAMES HENRY CARLETON, U. S. A.

Wednesday, December 14, 1853.

A squadron of cavalry, formed of company "H", first dragoons, commanded by First Lieutenant Samuel D. Sturgis, and company "K", first dragoons, commanded by Brevet Major James Henry Carleton, in all one hundred strong, with one 12-pounder mountain howitzer, left Albuquerque, at eleven o'clock this morning, as an expedition to explore the country around the ruins of Gran Quivira, New Mexico, and for other objects connected with the bands of Apache Indians who often infest that portion of the territory.

Our route, for the forty miles, lies down the left bank of the Rio Grande. This part of the country has often been described. Its principal features are easily named. The Rio Grande, at this point, averages about one hundred yards in width, and not more than eighteen inches in depth. Its waters are turbid, like those of the Kansas. Its bottom and banks are composed of sand. The valley along the river is very level, and usually not over two feet higher than the surface of the water. In some places it is more than two solid miles broad. It has a great deal of sand mixed with the soil; but it is remarkably fertile. From this valley a second bottom, or table-land extends, by a gradual ascent, back to the mountains on either hand. This table-land is destitute of water and uncommonly sterile. The lower level, which skirts the river, and which is irrigated from it, is the source of nearly all the agricultural wealth of New Mexico.

A storm of rain which came on yesterday continued, almost without intermission, for the whole of last night and until late this foremoon; the roads are, therefore, very muddy. In consequence of the heaviness of the travelling, the squadron was encamped near the residence of an American gentleman, named Baird, seven miles 694 yards below Albuquerque. Here we are able to obtain wood and hay; but we are obliged to send across the Rio Grande to purchase corn.

Thursday, December 15, 1853.

About four o'clock this morning it commenced snowing, with a piercing wind from the north. Our poor horses, exposed to the inclemency of the storm, were soon chilled and trembling with the cold. By eight o'clock the weather began to moderate; but we had snow-squalls, from different points of the compass, for the whole forenoon. Before we reached a little hamlet, called Valencia, fourteen miles 265 yards from our camp of yesterday, we encountered a shower of rain and sleet. As in this place we could get two corrals, wherein our horses could be partially sheltered, it was decided that we should encamp here for the night. The weather seems singularly unpropitious for an expedition. It is said to be quite unusual to have these storms in New Mexico at this season of the year. Tonight, however, at nine o'clock, the clouds have all left the heavens, and we have promise of a fair day tomorrow.

Three Mexican citizens of respectability, a Mr. Chavis and two of his sons-in-law, came to our camp this evening, and informed Major Carleton that it was their intention to establish a colony of settlers at a point east of a range of mountains known as the Sierra Blanca, and along some streams affluent to the Pecos, called the Seven Rivers; that they proposed going with this command as far as Gran Quivira; and that from that point to the Seven Rivers they desired to be furnished with an escort of dragoons. They were informed that Brevet Lieutenant Colonel Chandler, of the army, was about to proceed from near Doña Ana, with three companies, directly to the country in the neighborhood of the Seven Rivers, and, if they wished to do so, they could have the advantage of his protection. Mr. Chavis concluded to go by the way of Gran Quivira, at all hazards; and to proceed across the country, from that point, even without an escort. The truth doubtless is, the old gentleman fancies that the purpose for which this squadron is going into that country is to search for a great amount of treasures which are said to be buried beneath the ruins there, and he hopes he may be able to obtain a share of them.

Friday, December 16, 1853.

The weather became very cold last night; all the ponds of water extending up and down the valley are frozen over, and the ground is hard and resounds loudly at the tread of the column. The sand-bars along the river seem to be covered with geese, ducks, and brant, which

have been driven by the ice from the lagoons and sloughs. They are so tame they hardly fly at our approach.

We arrived at a little town, called Casa Colorada, about four o'clock this afternoon. This place is thirty-nine 537 yards from Albuquerque. Here our road leaves the river for the mountains toward the point east. As it will take two days to march to Manzana, the next and last point where we can procure any corn, we are encamped for the night; and shall here buy, and haul in our wagons tomorrow, the forage our animals will require to that town.

The citizens of Casa Colorada gave a ball this evening in honor of our coming. The sudden arrival amongst them of so many armed men is a matter of great astonishment.

The result of our observations, as regards the general appearance of the inhabitants of the country, made during these first forty miles of our march, may be stated in a few words. The dirty little villages through which we have passed, as well as those we have seen in the distance, have generally turned out their inhabitants en masse to get a sight at us. This gave us a sight at them. Had we been painters it would doubtless have been an interesting one; for men, women, children-motley assemblages-exhibited themselves to us in groups picturesque, as well as in crowds grotesq ue. Some blanketed, with sombreros and cigarritos; some with whitewashed and some with scarlet-dyed faces, some with rebosos, some nearly naked, some on house-tops shading their eyes with their hands, and some peering through chinks and crannies in the mud walls of their dwellings; but all curious as to whence we came and whither we were going. The national expression of Quien sabe appeared deeply written on every face. In no rancho or village have we seen a solitary indication of industry, cleanliness, or thrift since we left Albuquerque; and it may be remarked, parenthetically, that we have yet to see, in that town, the first evidence of these cardinal virtues. Indolence, squalid poverty, filth, and utter ignorance of everything beyond their corn-fields and acequias, seem to particularly characterize the inhabitants who are settled along the east bank of the river. We have seen nothing denoting energy on the part of any one, save that shown by the old man Chavis and his two sons-in-law. On the contrary, we could but observe amongst them what seemed to be a universal proclivity for rags, dirt, and filthiness, in all things; with sheer laziness and listlessness marking their every movement and all that they do. It may be said that the people whom we saw were of the lower order; but we were justified in coming to that conclusion from not seeing any of the better class.

Saturday, December 17, 1853.

We started this morning at eight o'clock. For about two miles our road lay up a gradually inclined plane, where we found ourselves on an almost level mesa that stretched uninterruptedly, eastward to the base

of those mountains which commence at the Sandia Peak and extend towards the south below El Paso del Norte.

This plain is sandy and entirely destitute of water. We saw several herds of cattle grazing upon it; but, so far as we could observe, there was very scanty pasture. Our guide, a Mexican, informed us that these herds are driven to the Rio Grande for water only once in two days. We saw but a solitary flock of antelopes, numbering some ten or twelve. This was midway between the river and the mountains.

The scenery, viewed from elevated points on this plain, was very beautiful. The Socorro and the Ciboletta ranges of mountains, and the distant peaks of others toward the north, were covered with snow, and gleamed in the sun with dazzling splendor. The long Sierras towards which we were now moving were also clothed in a winter-robe of white. They bounded the whole eastern horizon. Their tall summits and jagged outline, like a fringed edge, standing sharp and clearly defined against the morning sky, glowed in the light as if burnished with silver. While towards us, along their whole western slope - which descended toward the plain as a coast towards the ocean - the valleys and precipices reposed in cold blue shadows, chilly enough to make the beholder shudder in looking upon them.

Just before arriving at the foot of these mountains, we found a pond of water four hundred yards to the right of the road. Our guide informed us that in the dry season no water can be obtained at this place.

There are here two passes through the mountains; the one on the left hand going eastward, leading through a difficult canyon, is practicable only as a bridle path; the one on the right hand affords every natural facility for making a most excellent road for wagons.

These passes are known, in the language of the country, as Los Puertos de Abo. The summit of the right hand pass is nineteen miles and sixty-three yards from Casa Colorada, and lies east 20° south from that town. The road for this whole distance is by far the finest we had seen in New Mexico, and is not surpassed, in any point of excellence, by the celebrated shellroad at New Orleans.

The first outcropping of stone which we observed as we approached the mountains was of quartz, trap, and greenstone. These are surmounted by numerous strata of fossiliferous limestone, of good quality. These strata in some places are hundreds of feet in thickness. This latter formation preva ils exclusively at the summit of the pass.

There is no timber of any kind to be met with until you come near the top of the mountains; the growth there is entirely of dwarfish piñon and stunted cedar.

We encountered snow half way up the pass. The scene presented by the column winding its circuitous route to the summit, with parts of it lost to view behind some jutting crag, or just emerging into sight from some deep gorge - the foreground filled with the dragoons moving upon different turns of the road, the sun glanzing brightly on their appointments, - the towering snow-clad peaks on either hand the background the valley of the Rio Grande, with the distant mountains in the northwest marking with a serrated line the far off horizon - was a picture whose beauty will not easily be forgotten.

The general direction of the chain of mountains stretching northward of the pass toward Sandia Peak is north 10° west. The first elevated peaks southward of Sandia are called La Tetilla; the next La Sierra de la Manzana; then come Los Puertos de Abo; and then the high range still farther south which is known as La Sierra del Palo Duro.

From the summit of the pass for the first two or three miles the road is very circuitous. It then has an easy gradual descent for about three miles further, when you come to a deep canyon which lies entirely to the left, but in sight of the road, and at a distance from it of six or eight hundred yards. There, in the canyon, good sweet water is always found. This place is called Agua de Juan Lujan. Near this, but a few hundred yards further east, we passed a large spring of salt water. It is known by the Mexicans who travel the road as La Salada. Passing this, we next encountered, for some three or four miles, mesas of dark chocolate-colored sandstone, through which we wound our way to a point where the roads forked. We took that which leads to the left hand. In less than half a mile, our road lying up the dry bed of a wet-weather creek, we came to a fine streamlet of fresh water. This was fringed by a beautiful grove of cottonwood. At the distance of four hundred yards, after we struck the water, we came to the Ruins of Abo. Here we are encamped for the night.

At this time, when so many surveys are making from different points along the Mississippi toward the Pacific, with a view of ascertaining the best route for a railroad track, perhaps the suggestion may be of value that the Pass of Abo offers advantages in this respect which may not be found in any of the other passes through these mountains. They are certainly of sufficient consideration to make it an object to have this pass thoroughly explored before others shall be adopted. By directing the route from Anton Chico, on the Pecos river, immediately past the Ruins of Abo, and thence through the canyon by which the bridle-path lies that has already been spoken of, the open plain in the great valley of the Rio Grande can be reached without tunnelling a rod, and with no more difficulty as to the blasting of rocks and grading down to acclivities, than has been encountered on any of the ordinary railroads in the United States. Let the road be directed across the plain so as to pass the Rio Grande at the mouth of the Puerco River, thence up the valley of that river to its west branch, and up the valley of that branch to Laguna;

thence to Zuni, and from that point by the route which the indefatigable Whipple will without a doubt find, to the shores of the Pacific. These suggestions may possibly be of practical utility to those who are engaged in by far the greatest enterprise of modern times.

The Ruins of Abo consist of a large church, and the vestiges of many other buildings, which are now but little else than long heaps of stones, with here and there portions of walls projecting above the surrounding rubbish. There is yet standing enough of the church to give one a knowledge of the form and magnitude of the building when in its prime. The ground plan of this structure is in the form of a cross, its longitudinal direction being within ten degrees of the magnetic meridian. It was, perhaps, situated exactly upon that meridian when the building was erected--the variation of the compass accounting for the present difference. The great entrance was in the southern end. From thence to the head of the cross, where the altar was doubtless situated, it is one hundred and thirty-two feet, inside. This, the nave of the church, is thirty-two feet in width. The short arm of the cross, or what in cathedrals is called the transept is forty-one feet in length and twenty-three in breadth. The transept is sixty-six feet from the doorway. These measurements were made with a tape-line in a very high wind. The round numbers in feet are, therefore, only given, without noting the fractional parts of a foot.

The walls are of a great thickness, and their height is, at this day, in over half the structure, all of fifty feet. The upper edge of these walls is cut into battlements. The church, as well as the neighboring buildings now in ruins about it, was built of a stratified, dark red sandstone, such as crops out along the creek and makes its appearance on the sides of the surrounding hills. The pieces of stone do not average over two and a half inches in thickness, and are not generally over one foot in length. Each piece is of the form it had when it was broken from its native bed. We saw not a single dressed stone about the ruins. These stones are laid in mortar made of the ordinary soil from the ground immediately at hand. The roof of the church was evidently supported by beams and covered with earth, as in the churches still occupied at places of worship throughout New Mexico. We saw no signs of an arch, nor an indication that those who planned and built the church at Abo were at all acquainted with architecture as a science. The walls over the doors and windows, so far as we could observe, had been supported by beams of wood. When these had become destroyed, those stones which were liberated above had dropped down; so that now, over each window there is a rude sort of Gothic arch, owing its form, not to design, but to accident. The wood-work of the church was evidently destroyed by being burnt. Wherever in the walls portions of beams still remain they are found charred and blackened by fire.

The form of the church alone, proves it to have been designed by Christians. Perhaps the workmen employed in its construction were Indians.

We saw a distinct mark on an axe in one of the pieces of timber, which is imbedded in the east wall of the church some six feet from the ground. Saws also were doubtless used, but we discovered no marks of them. The stick of timber marked with the axe, and some beams that supported a landing at the head of the stairway which is made in the west wall, were the only pieces of wood about the ruins which were not burned so much over their surface as to obliterate all marks of tools.

The extent of the exterior wall, which, from the appearance of the present heaps of stones, once surrounded the church and the town, was about nine hundred and forty-two feet north and south, with an average width east and west, of say four hundred and fifty feet. A large population must have occupied this town and its neighborhood, if one were to judge of the number of people by the size of the church built to accommodate them at their devotions.

We saw few, if any, unmistakeable signs that the ground had been cultivated in the vicinity of these ruins. Nor is there any good arable land, so far as we could observe, at any point nearer the Rio Grande; for uplands to be arable, in the climate of New Mexico, must be so situated as to be capable of irrigation. The stream of water at Abo is in a deep ravine. It is very inconsiderable in point of size, and loses itself in the sand in less than five hundred yards below the springs which feed it. The adjacent country is rolling and broken, and covered with pinon and cedar. The underlying rocks are secondary red sandstone. The summits of the mesas and neighboring eminences are composed of grey limestone filled with marine fossils.

It was nearly night when we reached Abo. There was a keen freezing gale from the northwest, and the whole appearance of the country was cheerless, wintry, and desolate. The tall ruins, standing there in solitude, had an aspect of sadness and gloom. They did not seem to be the remains of an edifice dedicated to peaceful, religious purposes, a place for prayer, but rather as a monument of crime, and ruthlessness, and violence. The cold wind when at its height appeared to roar and howl through the roofless pile like an angry demon. But when at times it died away, a low sigh seemed to breathe along the crumbling battlements; and then it was that the noise of the distant brook rose upon the earlike a wail.

In the mystery that envelopes everything connected with these ruins - as to when, and why, and by whom, they were erected; and how, and when, and why, abandoned - there is much food for very interesting speculation. Until that mystery is penetrated so that all these questions can be answered without leaving a doubt, Abo belongs to the region of romance and fancy; and it will be for the poet and the painter to restore to its original beauty this venerable temple, to rebuild its altars, and to exhibit again unto us its robed priests, its burning censers, its kneeling worshippers.

thence to Zuni, and from that point by the route which the indefatigable Whipple will without a doubt find, to the shores of the Pacific. These suggestions may possibly be of practical utility to those who are engaged in by far the greatest enterprise of modern times.

The Ruins of Abo consist of a large church, and the vestiges of many other buildings, which are now but little else than long heaps of stones, with here and there portions of walls projecting above the surrounding rubbish. There is yet standing enough of the church to give one a knowledge of the form and magnitude of the building when in its prime. The ground plan of this structure is in the form of a cross, its longitudinal direction being within ten degrees of the magnetic meridian. It was, perhaps, situated exactly upon that meridian when the building was erected--the variation of the compass accounting for the present difference. The great entrance was in the southern end. From thence to the head of the cross, where the altar was doubtless situated, it is one hundred and thirty-two feet, inside. This, the nave of the church, is thirty-two feet in width. The short arm of the cross, or what in cathedrals is called the transept is forty-one feet in length and twenty-three in breadth. The transept is sixty-six feet from the doorway. These measurements were made with a tape-line in a very high wind. The round numbers in feet are, therefore, only given, without noting the fractional parts of a foot.

The walls are of a great thickness, and their height is, at this day, in over half the structure, all of fifty feet. The upper edge of these walls is cut into battlements. The church, as well as the neighboring buildings now in ruins about it, was built of a stratified, dark red sandstone, such as crops out along the creek and makes its appearance on the sides of the surrounding hills. The pieces of stone do not average over two and a half inches in thickness, and are not generally over one foot in length. Each piece is of the form it had when it was broken from its native bed. We saw not a single dressed stone about the ruins. These stones are laid in mortar made of the ordinary soil from the ground immediately at hand. The roof of the church was evidently supported by beams and covered with earth, as in the churches still occupied at places of worship throughout New Mexico. We saw no signs of an arch, nor an indication that those who planned and built the church at Abo were at all acquainted with architecture as a science. The walls over the doors and windows, so far as we could observe, had been supported by beams of wood. When these had become destroyed, those stones which were liberated above had dropped down; so that now, over each window there is a rude sort of Gothic arch, owing its form, not to design, but to accident. The wood-work of the church was evidently destroyed by being burnt. Wherever in the walls portions of beams still remain they are found charred and blackened by fire.

The form of the church alone, proves it to have been designed by Christians. Perhaps the workmen employed in its construction were Indians.

We saw a distinct mark on an axe in one of the pieces of timber, which is imbedded in the east wall of the church some six feet from the ground. Saws also were doubtless used, but we discovered no marks of them. The stick of timber marked with the axe, and some beams that supported a landing at the head of the stairway which is made in the west wall, were the only pieces of wood about the ruins which were not burned so much over their surface as to obliterate all marks of tools.

The extent of the exterior wall, which, from the appearance of the present heaps of stones, once surrounded the church and the town, was about nine hundred and forty-two feet north and south, with an average width east and west, of say four hundred and fifty feet. A large population must have occupied this town and its neighborhood, if one were to judge of the number of people by the size of the church built to accommodate them at their devotions.

We saw few, if any, unmistakeable signs that the ground had been cultivated in the vicinity of these ruins. Nor is there any good arable land, so far as we could observe, at any point nearer the Rio Grande; for uplands to be arable, in the climate of New Mexico, must be so situated as to be capable of irrigation. The stream of water at Abo is in a deep ravine. It is very inconsiderable in point of size, and loses itself in the sand in less than five hundred yards below the springs which feed it. The adjacent country is rolling and broken, and covered with pinon and cedar. The underlying rocks are secondary red sandstone. The summits of the mesas and neighboring eminences are composed of grey limestone filled with marine fossils.

It was nearly night when we reached Abo. There was a keen freezing gale from the northwest, and the whole appearance of the country was cheerless, wintry, and desolate. The tall ruins, standing there in solitude, had an aspect of sadness and gloom. They did not seem to be the remains of an edifice dedicated to peaceful, religious purposes, a place for prayer, but rather as a monument of crime, and ruthlessness, and violence. The cold wind when at its height appeared to roar and howl through the roofless pile like an angry demon. But when at times it died away, a low sigh seemed to breathe along the crumbling battlements; and then it was that the noise of the distant brook rose upon the earlike a wail.

In the mystery that envelopes everything connected with these ruins - as to when, and why, and by whom, they were erected; and how, and when, and why, abandoned - there is much food for very interesting speculation. Until that mystery is penetrated so that all these questions can be answered without leaving a doubt, Abo belongs to the region of romance and fancy; and it will be for the poet and the painter to restore to its original beauty this venerable temple, to rebuild its altars, and to exhibit again unto us its robed priests, its burning censers, its kneeling worshippers.

Sunday, December 18, 1853.

It took us until half past nine o'clock this morning to complete our examination of the ruins. We then marched over a rolling and, in places, broken country twelve miles 760 yards, and in a general direction of N. 12° E. For the whole of this distance the country is covered with groves of cedar and piñon trees. We then came to the Ruins of Quarra. These appear to be similar to those of Abo, whether regarded with a view to their evident antiquity, the skill exhibited in their construction, their preservation at the present time, or the material of which they are built. They too are situated upon a small stream of water that soon disappears in the earth.

The church at Quarra is not so long by thirty feet as that at Abo. We found one room here, probably one of the cloisters attached to the church, which was in a good state of preservation. The beams that supported the roof were blackened by age. They were square and smooth, and supported under each end by shorter pieces of wood carved into regularly curved lines and scrolls, like similar supports which we had seen at the ends of beams in houses of the better class in Old Mexico. The earth upon the roof was sustained by small straight poles, well finished and laid in herring bone fashion upon these beams. In this room there is also a fire-place precisely like those we found in the Mexican houses at the present day.

We had heard that in a stone panel inserted in the front end of the church at Quarra we should find emblazoned the fleur-de-lis, the ancient armorial bearings of France; and many therefore supposed that possibly this church had been erected by French Catholics who had come as missionaries across the country from the direction of New Orleans. But we saw no panel, no fleur-de-lis, and no stone of any kind, that bore marks of a chisel or of a hammer. Every piece in the church, in the cloisters, and in the debris of a neighboring village, was in the same rough form which it had when it was broken from the quarry.

The course from Quarra to the town of Manzana is, W. 35° N.; the distance is four miles 1,145 yards. We now find ourselves at a very great elevation. The whole country is clad in a winter garb. The high Sierra de las Manzanas, and the towering pyramidel peaks called Las Tetillas, gleam with a depth, it is said, of more than two feet of snow.

The town of Manzana is situated at the base of the Sierra of that name, and a small rivulet which, in running eastward to the open plains, soon sinks into the ground. Several dams are constructed along this rivulet, to collect and retain the water for purposes of irrigation. The town is built partly of logs set on end jacal fashion, with the interstices filled with mortar, and with roofs covered with earth, and partly of adobes. It sports a very dilapidated church, erected, it would seem, as a practical antithesis to the morals of the inhabitants; for Manzana

enjoys pre-eminently the wide-spread notoriety of being the resort of more murderers, robbers, common thieves, scoundrels, and vile abandoned women than can be found in any other town of the same size in New Mexico, which is saying a good deal about Manzana. Fortunately it contains but few inhabitants, not more than five or six hundred at most. It is not an old town. When the first settlers came here they found two groves of apple trees, one just above the site now occupied by the town, and one just below. Tradition says these trees were planted at the time Abo and Quarra were inhabited; and yet, tradition has lost all trace of when that time was. It is said the Catholic church has lost all trace of when that time was. It is said the Catholic church of New Mexico claims that they were planted by some priests, but admits that it has no records or authentic traditions about the ruins we have visited. Her claim, however, that some priests did this at some period or other, is good enough to authorize her to farm out these two orchards yearly, as we were informed, to the highest bidder. Two of the largest trees in the lower grove were found to be respectively eight feet and six feet in circumference. The largest was hollow - a mere shell of an inch or two in thickness. These trees have a venerable appearance. They have never been pruned, and have, therefore, grown gnarled and scraggy. Many of them are much smaller than those which were measured. They have grown, doubtless, from seeds which have fallen from the older ones. How long this process of self-planting has been kept up, of course, no one can know. Apple trees are not indigenous to New Mexico. Assuming it to be true, however, that the largest of these trees were planted at the period referred to, then the ruins of Abo and Quarra are more than two centuries old.

These two groves, or rather these two clumps of trees, are not standing regularly in rows and orchard-like; on the contrary, they are crowded together in the most irregular and natural manner.

The name of this town, and of the towering Sierra to the west of it, was adopted from finding these orchards here; Manzana being the Spanish for apple, and Manzano the botanical name in that language for apple tree. The name of the town is spelt indiscriminately in both ways throughout New Mexico.

Immediately about Manzana, and up the slope towards the high mountains west of the town, there is a pine forest many miles in extent, of most excellent timber for boards and for building purposes. Some twenty-five of thirty miles in an easterly direction there is a large salt lake, which has no outlet. This lake supplies nearly the whole of the upper portion of the territory with salt. There are fine roads leading towards it from different directions. We were informed that the bottom of the lake is covered with a sheet of solid salt, which, in the dry season, is some three or four inches in thickness. When the rainy season sets in, filling the lake with fresh water drained from the surrounding prairies, this sheet of salt is said to dissolve down to half this thickness. We were

not prepared to examine and visit this lake. It lies directly off our route, and has neither wood nor fresh water within many miles of it. The proper time to go to it would be during the rainy season and when there is grass.

We had procured orders from the vicar general of New Mexico for what corn we should require at Manzana--corn which had been paid in by the peasantry as tithes (diezmos) to the Catholic Church. When we arrived there, we found that the corn belonging to the church was some six or eight miles off, at another village, called Torreon. So we were forced to buy on credit what forage we required.

Here we learned that a small party of Texans had recently been at the ruins of Gran Quivira in search of treasures. Whilst there they sent an Apache Indian in to Manzana for some articles they wanted. An American named Fry, a hunter, who lives at Manzana, went out to the ruins in company with two Mexicans to see these Texans; when he reached there he found them gone. He ascertained while he was gone that there was no water to be found at a pond where our Mexican guide expected we should find it, as it had dried up; and that unless we found another small pond some six or eight miles from that, and which our guide knew nothing about, we should be obliged to go without any, for he said there was probably no snow about the ruins, as about Manzana, which we could melt. So Fry was employed to pilot us to this pond, as failing to find it, we could obtain no water nearer to Gran Quivira than at the little stream at Quarra, which is a distance of thirty-five miles.

Monday, December 19, 1853.

This morning we loaded thw wagons with all the corn they would hold; but it did not amount to over two days' feed, as our other supplies had to be taken along besides. In addition to this the dragoons put into their haversacks enough for their horses for one night. We started about ten o'clock in the morning and retraced our steps toward Abo, to a point on the road known as Arroyo de la Cienega - a dry bed of a wet-weather stream. This is nearly two miles below Quarra. Here we left the beaten track and took a course across the country in the direction of E. 40° S. After travelling some six miles we struck an Indian trail which leads from Manzana to the country of the Mescalero Apaches. This we followed in the same general direction to some holes in the rocky bed of another wet-weather stream called Las Aguachas. These often contain water enough for a small party with animals, but we found them quite dry. One, only, had a small cake of ice, but no water. They are 13 miles 1,022 yards from where we left the road. The country for this distance is quite barren. It has but little grass, but is covered with the tall branching cactus, and with scattered clumps of pinon and cedar trees. On our right hand, for the last third of this distance, we have had a mesa covered with timber to its summit, which is called La Mesa de los Tumanes. It is improperly laid down upon the maps as a Sierra, or mountain range. It runs

from west to east, commencing a few miles south of Abo and ending in a point on the plans about fifteen miles east of Las Aguachas, where we cross over it by ascending gradually through an open prairie, which can easily be seen from the place where we left the road below Quarra.

The stone that crops out at Las Aguachas is a remarkably fine sandstone, suitable for grindstones and wetstones. The best is at the upper end of the ravine where the last pool of water would be found in the wet season.

When we reached this point it was nearly night. A cold piercing wind was blowing, and it was yet some miles to the place where we hoped to find water. The wagons were some two or three miles behind; Major Carleton pushed on with the squadron, having Fry for a guide, to find the pond before dark; leaving Lieutenant Sturgis with twelve men at Las Aguachas, to wait for the wagons, and then follow with them on the trail. The Mexican guide stayed with the Lieutenant, that he might track the squadron after night should set in. After travelling a little over five miles, the squadron arrived at the water. It was found in a deep hollow in the open prairie. The pond is not over eighty or one hundred yards in diameter, and might easily be missed after dark even by one acquainted with its locality. The water is fresh and sweet. This pond is nearly a mile from timber. It lies immediately off against the mouth of a pass through the Mesa de los Tumanes, and is known to the shepherds as La Laguna de la Puerta, the Lake of the Pass. Here we made holes in the ice, and, having watered all the horses, moved up into the pass, where we found wood in abundance, and very good protection from the cold wind. We soon had large fires burning, which served as a beacon to the lieutenant, who was behind bringing up the wagons. Shortly after dark he arrived. One of the wagons was immediately unloaded and sent with the water-kegs to the lake; the men taking lanterns to see to get the water through the ice. By ten o'clock that night our horses were groomed and fed, the men had their suppers, and large piles of pinon wood were blazing the whole length of the camp, giving it a cheerful and picturesque appearance.

This camp is twenty-five miles and 90 yards from Manzana.

Tuesday, December 20, 1853.

As we knew it would be quite impossible to march to Gran Quivira and make the necessary observations there and back to the laguna in one day, it was decided to rest this forenoon, and to fill the kegs and India rubber water-tanks with water, and then to march to the ruins in the afternoon; to encamp near them to-night; to employ the forenoon of to-morrow in their examination; and then to return to-morrow evening to this place. In this way our animals would not be without water more than a day and a half. We accordingly broke up our camp about half-past twelve o'clock. After we had filled our kegs and tanks at the laguna, we ascended a high ridge for a mile or more, when our guide

pointed out to us what he said was the great church or cathedral, at Gran Quivira. It was in an air line all of thirteen miles distant, and yet we could see it distinctly with the naked eye. We could have seen it easily when five or six miles further off, had there been no obstruction to the view; a proof of the remarkable clearness of the atmosphere in this elevated region. It lies S. 5° E. by the compass from Laguna de la Puerta, and served for a land-mark towards which to direct our march. Our course was a very straight one; for the country which is an open rolling prairie, offered no impediment to our moving in a right line. The weather changed to be very cold during the afternoon; when near sunset a fierce wind arose from the direction of the snow-clad mountains in the west, and a cold vaper like a cloud came over the country, enveloping everything in a dense fog, and covering men and horses with a hoar frost. It was feared that the gale would change into one of those dreadful winter northers which are sometimes experienced in this country, and which are so fatal to men and animals when exposed to their fury on the open prairie. So the direction of the march was changed, that we might get the shelter of the timber on the slope of the Mesa de los Tumanes, which stretched along our right at a distance of not more than three or four miles. This we struck very opportunely, just as night was setting in. We soon had large fires blazing, and all our horses well blanketed and picketed on the leeward side of them, to get the benefit of the heated air and of the eddy in the wind from the long line of tents. In this way they were kept from suffering, although the night was uncommonly cold and inclement.

So still another day has passed away, and the ruins are not yet reached. Quivira would seem always to have been a difficult place to arrive at. We find in Castaneda's history of the expedition into this country made by Francisco Vasques de Coronado, in 1540, '41, and '42, that that general was forty-eight days in hunting for it, starting from some point between the Rio Grande and the Gila River. All the way from Albuquerque we have asked the people of the country where the ruins were situated; How they looked; Who built them; etc. etc., etc. To all these questions we could seldom get a more definite reply than "Quien sabe?" It seemed as if the genii who, in the Eastern tale at least, are said to guard the depositories of great treasures, were determined to make the existence of such a place as Gran Quivira as much of a problem to us as to the Mexicans themselves. We had seen, before the fog set in, an edifice in the distance, which had seemed to move away as we approached it, like the weird lakes of water in a mirage. But to-morrow, at all events, will decide for us whether that edifice be a Fata Morgana or not.

Wednesday, December 21, 1853.

At daybreak this morning every tree and spire of grass, and even the blankets upon our horses, were covered with ice. The trees seemed as if every twig was made of frosted silver. The wind had gone down, and overhead the sky was clear; but a heavy bank of fog extended all along the east,

obstructing our view of the Sierra de las Gallinas, which bounds the horizon in the direction. It was long ere the approaching sun waded up through so dense a veil.

Soon after we left camp we again saw the cathedral of Gran Quivira; but in surmounting one eminence after another as we moved along over a rolling country, the ruins, phantom like, seemed to recede before us the same as yesterday. When we first saw them this morning they appeared to be about a mile and a half distant, when in reality they were more than five miles off. The last three of these five miles' travel was over nothing but a succession of sand hills covered with a tall coarse grass, with two or three heads on each stalk, which seemed to be peculiar to this place. The horses sank more than fetlock-deep into the soft yielding sand; while it was with great difficulty that the mules, at a senile's pace, drew the wagon along.

At eleven o'clock in the forenoon we came to the last high ridge on the point of which the ruins are situated. This ridge is composed of dark blue compact limestone, which crops out in several places along its slopes. The ascent is quite abrupt on every hand, except towards the east; the ridge is prolonged in that direction for several miles. We all felt rejoiced that finally we had reached a place about which so much had been written, and yet so little had really been known.

Whatever may have been the grandeur and magnificance of that place in ages long past, its present appearance and condition are easily described.

We found the ruins of Gran Quivira to consist of the remains of a large church, or cathedral, with a monastery attached to it; a smaller church or chapel; and the ruins of a town extending nine hundred feet in a direction east and west, and three hundred feet north and south. All these buildings had been constructed of the dark blue limestone which was found in the vicinity.

The cathedral, which we had seen from Laguna de la Puerta, is one hundred and forty feet long outside, with the walls nearly six feet in thickness. It stands longitudinally W. 15° S., with the great entrance in the eastern end. The altar was in the western end. Like the churches at Abo and Quarra, it is constructed in the form of a cross. From the doorway at the foot of the cross to the transept, it is eighty-four feet seven inches; across the transept it is twenty-one feet six inches; and from thence to the head of the cross it is twenty-two feet seven inches; making the total length, inside, one hundred and twenty-eight feet eight inches. The width of the nave is twenty-seven feet; the length, inside of the short arm of the cross, is thirty-six feet. A gallery extended along the body of the cathedral for the first twenty-four feet. Some of the beams which sustained it, and the remains of two of the pillars that stood along under the end of it which was nearest to the altar, are

still here; the beams in a tolerably good state of preservation--the pillars very much decayed; they are of pine wood, and are very elaborately carved. There is also what, perhaps, might be termed an entablature supporting each side of the gallery, and deeply embedded in the main wall of the church; this is twenty-four feet long by, say, eighteen inches or two feet in width; it is carved very beautifully, indeed, and exhibits not only great skill in the use of various kinds of tools, but exquisit taste on the part of the workmen in the construction of the figures. These beams and entablatures would be an ornament to any edifice even at the present day. We have cut one of the beams into three parts, to take back with us. The entablatures are so deeply set in the walls that we are unable to procure a piece of them. The beams are square, and are carved on three sides; the floor of the gallery rested on the fourth side.

The stone of which the cathedral was built was not hewn, nor even roughly dressed; but the smoothest side of each piece was laid to the surface with great care. We saw no one piece in all the ruins which was over a foot in length. The mortar was made from the ordinary soil found upon the spot; it affords but a poor cement to resist the action of the elements and the ordinary ravages of time.

The walls of the cathedral are now about thirty feet in height. It was estimated, from the great quantity of stones which have fallen down, forming a sort of talus both within the walls and outside of them, that, originally, this building was all of fifty feet in height. There is a small room to the right as you enter the cathedral, and another room, which is very large, and which communicates with the main body of the building by a door at the left of the transept. There was also communication between this large room and the monastery, or system of cloisters, which are attached to the cathedral. The chapel is one hundred and thirty feet from the cathedral. This building is one hundred and eighteen feet long, outside, and thirty-two in width; its walls are three feet eight inches in thickness; it is apparently in a better state of preservation than the cathedral, but yet none of the former wood-work remains in it.

A short distance from the chapel there is an enclosure, which we supposed was the ancient cemetery.

The remains of the town are but heaps of stones, with here and there some evidences of narrow streets running nearly east and west, and north and south. Through these stones pieces of beams and sticks of wood are seen to project; these indicate, by moss and otherwise, that they are of very great antiquity; they are bleached white by the weather, and are deeply gnawed by the tooth of time.

We saw some deep pits, which were circular, and walled around like wells; we believed them to be the remains of cisterns--they were not deep

enough for wells; some have concluded that they were estufas. Two hundred and ninety feet north of the cathedral there are evident traces of an estanque; this, as well as the cisterns, was probably made to collect the rain-water which ran from the different buildings.

Toward the east we saw a well defined road, which kept the ridge for a few hundred yards, and then turned off toward the southeast, where all further vestiges of it are lost in the sand. Where it is the most plainly marked along the summit of the ridge some large cedar trees are growing directly in the middle of it; these trees look to be very old indeed.

In every direction about the ruins we found great quantities of broken pottery, many specimens of which we have collected to take to Albuquerque. Some of it is handsomely marked and well glazed. We also found several stones which were evidently once used as matates. These matates are in use to this day, to rub boiled corn upon until it becomes a kind of dough, suitable to be kneaded into cakes called tortillas. We have selected two, which we shall take home with us. These prove to us that the ancient inhabitants of Gran Quivira knew the use of corn as an article of food.

There is no sign that the ground in the vicinity has ever been cultivated, and no mark whatever of irrigating ditches. Indeed, an acequia, or open aqueduct, could not, it is believed, have brought water to the Gran Quivira, for the point occupied by the town appears to be considerably higher than the surrounding country.

We were informed by men at Manzana who had been pastores in their youth, and had herded sheep in this region of country, that there is a fine bold spring of water at the base of the Sierra de las Gillinas, about fifteen miles from the ruins, and that they had heard that water once ran in an aqueduct from that sprint to the Gran Quivira. This would hardly have been possible, unless the aqueduct was a closed pipe; because, from appearances, the country intervening between those two points is considerably lower than either of them.

We saw no indications that there had ever been such an aqueduct, nor did we see any sign that wells had been digged in the neighborhood. From every feature of the country, both within and without the surrounding sand-hills, we could but be lost in conjecture as to the method adopted by the inhabitants to obtain even water to drink, let alone for purposes of irrigation, unless they were supplied by some spring or stream that has long since disappeared. The nearest point where water can always be obtained now, is the spring which the pastores spoke of as being at the base of the Sierra de las Gallinas, fifteen miles away. The Laguna de la Puerta is 14 miles 773 yards from Gran Quivira, in nearly a direct line; but this is said to become entirely dry in seasons of great drought.

As at Abo and Quarra, we were surprised at not finding, in the cathedral and chapel, some of the doorways and windows surmounted by an arch. Had they been so, originally, these buildings would be in a better state of preservation. The beams across windows and doors, in giving way to the weight above as they became decayed, made a fair beginning towards letting down the whole superstructure.

Mr. Gregg, in speaking of the ancient ruins of New Mexico, says: "The most remarkable of these are La Gran Quivira. This appears to have been a considerable city, larger and richer by far than the capital of New Mexico has ever been. Many walls, particularly those of churches, still stand erect amid the desolation that surrounds them, as if their sacredness had been a shield against which time dealt his blows in vain. The style of architecture is altogether superior to anything at present to be found in New Mexico. What is more extraordinary still is, that there is no water within less than some ten miles of the ruins; yet we find several stone cisterns, and remains of aqueducts, eight or ten miles in length, leading from the neighboring mountains, from whence water was no doubt conveyed. And as there seem to be no indications whatever of the inhabitants having ever been engaged in agricultural pursuits, what could have induced the rearing of a city in such an arid woodless plain as this, except the proximity of some valuable mine, it is difficult to imagine. From the peculiar character of the pl ace, and the remains of cisterns still existing, the object of pursuit, in this case, would seem to have been a placer--a name applied to mines of gold-dust intermingled with the earth. Other mines have, no doubt, been worked in the adjacent mountains, as many spacious pits are found, such as are usually dug in pursuit of ores of silver; and it is stated that in several places heaps of scoriae are found.

"By some persons these ruins have been supposed to be the remains of an ancient pueblo, or aboriginal city. This is not probable; for, though the relics of aboriginal temples might possibly be mistaken for those of Catholic churches, yet it is not presumed that the Spanish coat of arms would be found sculptured and painted upon their facades, as is the case in more than one instance. The most rational accounts represent this to have been a wealthy Spanish city, before the general massacre of 1680, in which calamity the inhabitants perished--all except one, as the story goes,--and that their immense treasures were buried in the ruins. Some credulous adventurers have lately visited the spot in search of these long-lost coffers, but as yet (1845) none have been found."

There is no indication that the escutcheon of Spain was ever sculptured or painted on any facade about the ruins; and the facts, as regards the style of architecture and the remains of an aqueduct, do not, as is shown by this journal, agree with his statement. Mr. Gregg must have described the appearance of this place from what he heard about it; for on all those subjects of which he wrote from personal observation he is most excellent authority.

Pedro de Castaneda accompanied Francisco Vasquez de Coronado in his great expedition to the north in search of gold. He wrote a history of the campaign. General Vasquez de Coronado arrived in a country which was called Quivira, in the month of June, 1542. If the present ruins of Gran Quivira are in a region identical with the Quivira then visited, it may be of interest to state that Castaneda says of it and of its inhabitants:

"Up to that point the whole country is only one plain; at Quivira, mountains begin to be perceived. From what was seen, it appears to be a well peopled country. The plants and fruits greatly resemble those of Spain; plums, graps, nuts, mulberries, rye, grass, oats, pennyroyal, origanum, and flax, which the natives do not cultivate, because they do not understand the use of it. Their manners and customs are the same as those of the Teyas; and the villages resemble those of New Spain. The houses are round, and have no walls; the stories are like lofts; the roofs are of straw. The inhabitants sleep under the roofs; and there they keep what they possess."

The manners and customs of the Teyas, to which he likens those of the people of Quivira, are described as follows:

"These natives are called Querechos and Teyas. They live under tents of buffalo skins tanned, and subsist by the chase of these animals. These nomadic Indians are braver than those of the villages; they are taller, and more inured to war. They have great troops of dogs, which carry their baggage; they secure it on the backs of these animals by means of a girth and a little pack-saddle. When the load becomes deranged, the dogs begin to bark to warn their master to adjust it. These Indians live on raw meat, and drink blood; but they do not eat human flesh. Far from being evil, they are very gentle, and very faithful in their friendships. They can make themselves very well understood by signs. They cut meat in very thin slices, and dry it in the sun; they reduce it afterwards to a powder, to preserve it. A single handful thrown into a pot answers for a meal, for it swells greatly. They prepare it with the fat which they preserve when they kill a buffalo. They carry around the neck a great intestine filled with blood, which they drink when thirsty. If they open a buffalo, they squeeze the masticated grass which is found in the stomach, and drink the juice which runs out; they say that this is the whole substance of the belly. They open a buffalo at the back, and divide it at the joints, by means of a piece of pebble attached to the end of a stick, with as much facility as if they used a knife of the best steel."

The present ruins are not the remains of the round houses with roofs of straw, which Castaneda describes as the dwellings of the inhabitants of Quivira, three hundred and twelve years ago; and if they had had in those days instruments to shape and carve these beautiful beams and pillars, and entablatures, they would hardly have used pebbles at the ends of sticks in

cutting up the buffaloes which they had killed. Besides, the matates we have found are almost positive proof that the people who once resided here ate as food tortillas made of corn; while, from Castaneda's account one is obliged to believe that the inhabitants of the country which he calls Quivira lived entirely upon the flesh of the buffalo, as the Comanches do at the present day.

Castaneda says likewise that: "The Indians of the country had neither gold or silver, and were not acquainted with the precious metals. The Cacique wore on his breast a plate of copper, which he held in the greatest esteem."

Many have supposed that the ancient Aztecs built the edifices at Gran Quivira, Abo and Quarra, during their migration from Aztlan toward Anahuac; and that the ruins now found in the Navajo country, and the Casa Grandes which are still to be seen along the Gila River, were built by the same people and at about the same period of time. Captain Johnson, of the first dragoons, visited the ruins of the Gila river, in November, 1846; from his description of one of the Casa Grande, the largest and best of any he saw, we can discover no point of resemblance between it and those now before us. Captain Johnson says: "After marching six miles, still passing plains which had once been occupied, we saw to our left the Casa de Montezuma. I rode to it, and found the remains of the walls of four buildings, and the piles of earth showing where many others had been. One of the buildings is still quite complete, as a ruin. The others had all crumbled but a few pieces of low, broken wall. The large Casa was fifty feet by forty, and had been four stories high; but the floors and roof had long since been burnt out. The charred ends of the cedar joists were still in the wall. I examined them, and found that they had not been cut with a steel instrument. The joists were round sticks. There were four entrances, north, south, east, and west; the doors are about four feet by two. The rooms had the same arrangement on each story. There was no sign of a fireplace in the building. The lower story was filled with rubbish; and above, it was open to the sky. The walls were four feet thick at the bottom, and had a curved inclination inwards to the top. The house was built of a sort of white earth with pebbles, probably containing lime, which abounded on the ground adjacent; and the surface still remained firm, although it was evident they (the walls) had been exposed to great heat from the fire. Some of the rooms did not open to all the rest, but had a hole a foot in diameter to look through. In other places were smaller holes." Clavigero, the historian, believes that this great movement of the Aztecs from the north towards the south commenced about the year of our Lord 1160, and that Casa Grandes were built by them at various halts which they made in their circuitous journey towards the valley of Mexico. It has been shown that in 1542 there were no buildings of the size and character of the Casa Grandes, or such as are found here now, in all the country called Quivira, which Castaneda visited and described. So one must conclude that, so far as the Aztecs are concerned, whatever they may have had to do with the building of the

edifices either in the Navajo country, or on the Gila, or those found 250 miles northwest of Chihuahua, they never planned or constructed those at Gran Quivira.

History represents that Vasquez de Coronada, finding no gold during his great expedition, returned to Mexico, where he fell into disgrace and died in obscurity.

The Spaniards did not return to colonize the province of New Mexico until the year 1581; and the country could not be considered as conquered until 1595. For eighty-five years after this the colony seems to have prospered and to have grown in power. Towns and villages were built, and valuable mines of gold and silver were found and worked with success. The Catholic clergy were aided in their efforts to convert the Indians to christianity by the government, at whose expense large churches were erected in different parts of the province of New Mexico, corresponding with the missions, which were built for the same purpose and at about the same period in the other provinces of Texas and California. It was during this time, doubtless, that the large edifices at Abo, Quarra, and Gran Quivira were erected. It is more than probable that valuable mines of the previous metals were found in their vicinity, and worked under the direction of the Spaniards by the Indians who had been subjugated; for there is every reason to believe that the mountains east of the Rio Grande are at this day rich in gold and silver.

It appears that during these eighty-five years the Spaniards treated the Indians with the most cruel oppression, until finally the latter revolted against them. The night of the 13th of August, 1680, was the time set throughout all New Mexico, when the Indians should rise and make an indiscriminate massacre of all the Spaniards in the country. This plot was made known to Don Antonio de Otermin, then the governor and military commandant of the province, by two Indians chiefs. Every effort was made for defence and to avert the coming storm, but without success. The Indians rose as agreed upon; after various conflicts, they destroyed great numbers of the inhabitants; and, finally, by the latter end of September of that year, succeeded in driving all the rest, with Governor Otermin included, to El Paso del Norte, entirely beyond the confines of the territory.

We have been informed that there is now a tradition amongst the Indians, that as soon as their forefathers had become successful in expelling the Spaniards, they filled up and concealed all traces of the mines where they had toiled and suffered for so many years; declaring the penalty to be torture and death to any one who should again make known their locality.

Old Mr. Chavis, who overtook us soon after our arrival at Gran Quivira, informed Major Carleton that he had been told, when in his youth, by very old people, that a tribe of Indians once lived here called the Pueblos of

Quivira; that the Spanish priests came and lived amongst them, in peace and security, for twenty years; that during this period these large churches were erected; and that at the time of the great massacre there were seventy priests and monks residing here---all of whom were butchered excepting two, who contrived to make their escape; that, previous to their massacre, the priests had had intimation of the approaching danger, and had not only buried the immense treasures which had been collected, but had concealed likewise the bells of the churches; that many years afterwards the people of Quivira died off until but few remained; that one of these, a descendant of the chief, knew where the treasures were buried; that the remnant of the tribe afterwards emigrated and joined other Pueblos below El Paso; and that many years ago an old man, one of the last of the tribe, had told in what direction from the church these great treasures had been concealed. So far as the building of the churches and the massacre of the monks and priests are concerned in this account, as well as the final decrease and removal of the people who once lived here, there is no doubt but the story told by Mr. Chavis, is, in the main, correct. The account of the depositories of the bells and the treasure is said to have been written down as given from the lips of the last cacique of Quivira, who, at the time he made the disclosure, was living away below Mesilla, on the Mexican side of the river. A copy of this paper has been secured, and is here inserted in the original language, for the benefit of those who may take an interest in such matters.

"En el Semetario de la Parroquia grande en el centro del costado derecho segun la figura numero uno esta una entrana escarbando estan dos campanas tomando la linea de la abertura que dejan las dos companas se bera al oriente para el callejon que deja la eglesia vieja y el pueblo una lomita a distancia de tres cientas varas mas o menos que no hay otra que forme linea con las campanas debajo de dicha loma hai un setano de diez o mas varas retacado de piedras el cual tiene el gran tesoro.

"Nombrado por Carlos quinto de la Gran Quivira."

**(Footnote: "In the cemetery of the great parish church, in the centre of the right side, according to figure number one, there is a pit, and by digging will be found two bells. By taking the line of the opening left by the two bells, the line of the opening left by the two bells, there will be seen to the east, along the lane left by the old church and the town, a hill, at the distance of three hundred yards, more or less, which forms precisely a line with the bells. At the foot of said hill is a cellar of ten yards or more, covered with stones, which contains the great treasure. "Mentioned by Charles Fifth of Gran Quivira.")

The grammar of this document is preserved, as in the original. There can be no doubt but the belief that a large amount of gold and silver has

been buried here, has for a great number of years been seriously entertained. We find in the cathedral and in the chapel, in every room in the monastery, in every mound of stones in the neighborhood, and in every direction about the ruins, large holes dug, in many places to the depth of ten feet, by those who have come from time to time to seek for these hidden treasures. Some of these holes look as if they were made more than a century ago, while others appear to be quite recent. Even the ashes of the dead have not been left undisturbed during these explorations. Near the east end of the chapel we saw where the people who had been digging had thrown up a great many human bones, which now lie scattered about. From these we have selected six skulls to send to some one who is skilled in the science of craniology, that he may determine, if possible, to what race of people they once belonged. These skulls are thought to be unusually large.

The ruins of Gran Quivira have hitherto occupied the same position with respect to the boundless prairies which the fabulous island of Atlantis did to the ocean in days of antiquity. No one seemed to know exactly where this city was situated. But the uncertainty of its locality seemed to make no difference in regard to the interest that was felt concerning it; for people would believe in its existence, and receive great pleasure in listening to traditions about its marvellous beauty and magnificence, even when to a reasonable mind those traditions and accounts ran counter to probability.

Men of genius and distinction have taken great pains in following up mazes in the labyrinth of reports concerning it, whether oral or written, and in their glowing descriptions it has appeared almost like a city of enchantment. To them it had paved streets, and fluted columns, and ornate friezes, and sculptured facades; it had the remains of aqueducts and fountains; it had long colonnades, and even barbaric statuary; it had the groined arch, the shouldering buttress, the quaint gargoyle, and everything in outline and in detail that could betoken skill, and taste, and opulence. It was a city, they said, whose inhabitants departed from it so long back in the gloom and mists of the past as to leave in utter obscurity all other records concerning them.

The sphynx, they said, about whose bosom the sands from the Lybian desert had drifted for unknown centuries, was no more of an enigma than this was. Here were palaces and temples, and deserted courts, and long-echoing corridors, and grass-grown streets, and reigning over all a silence so profound as almost to be heard.

Historical societies had taken up these descriptions, and filed them away among their transactions as documents of deep interest. Venerable and learned ethnologists searched in dusty manuscripts and black-lettered volumes of antiquity for some authentic account of that race of men who reared and then abandoned such a city. But to this moment their researches have proved fruitless, and the story they seek is still recorded in an

unsealed book.

Our business is not that which will permit us to clothe with imaginary grandeur these vestiges of a people whose name has been erased from the book of nations, nor that which will allow us time to indulge in abstruse speculations as to their race or their language. These things belong to the poet and philosoper. With all those pleasant reveries and romantic fancies which these ruins away here on a desert are so wonderfully calculated to awaken we can have nothing to do. We came here to note realities; and now the facts we have seen, the theories we have read which were of value, the traditions we have heard deserving of attention, and the conclusions to which we have come concerning this interesting place, are all written down. All else save the things we saw admits of doubt, and is obscured by so dark a cloud of uncertainty as to leave much ground for new theories, and for, perhaps, infinitely more valuable conclusions.

We found that the Mescalero Apaches, with whom we had some business of interest, had all gone far towards the south. Our guide, who was a captive amongst them for eight months, gave us some information as to their strength in warriors, which is worthy of record. He says they live in small bands, or families, in order to distribute themselves over a greater extent of country for purposes of hunting. When they are engaged in war, or upon any other enterprise of importance, these bands become united. When separated, they are each controlled by a sub-chief; when acting in concert, they choose a head-man to direct affairs for the time being. The following list shows the name of each of these sub-chiefs and the strength of his band of fighting men:

Santos has forty men;
Josecito has nine men;
Barranca has nineteen men;
Negrito has twenty men;
Jose Largo has fifteen men;
La Pluma has thirteen men;
Santana has nineteen men.

Two chiefs who live in the Sacramento mountains, whose names are unknown, have fifty men.

Add to these the ten sub-chiefs, and we have in this tribe two hundred and eight men capable of bearing arms.

They are represented as having many good rifles, and as being most excellent shots. Living in the neighborhood of the great thoroughfare that leads from Texas to California, and having mountain fastnesses in which to take refuge when pursued, they are able, and very willing, to do a great deal of mischief.

From Gran Quivira, the northern point of the Sierra Blanca bears by the compass S. 30° E., and is distant about fifty miles.

The highest point of the Sierra de las Gillinas bears E. 5° N., and is distant about fifteen miles.

The peaks known as Las Tetillas bear N. 36° W., and are distant about fifty-five miles.

We left the ruins about three o'clock in the afternoon, and retraced our steps to the Laguna de la Puerta, where we arrived an hour after dark.

Thursday, December 22, 1853.

To-day we returned to Manzana, over the same track we had made to the Laguna. Here we encountered a snow-storm. This town is so elevated that hardly a cloud passes the mountains that does not shower upon it either rain, snow, or hail. From what we have observed during our second visit to this place, this Botany Bay of New Mexico, we have concluded that our former estimate of the character of the inhabitants was premature and ill-judged; we now believe that there is not one single redeeming trait of disposition or habits to be found within its borders.

Friday, December 23, 1853.

Our course to-day was about N. 10° W., and lay along the eastern slopes of the Sierra de la Manzana. We faced a snow-storm for nearly the whole forenoon, and were therefore unable to observe much about the features of the country. Six miles 729 yards from Manzana we passed a small mountain stream running towards the east--a mere brook, that is soon lost in the ground. On this there is a little village called Torreon. Two miles, 1,181 yards further north we passed another similar brook, and another small town called Tagique. From this last place, over a rolling, broken, and well timbered country, we marched to a small hamlet called Chilili. This town, like Torreon and Tagique, is situated upon a mere rivulet, running from the mountains to the open plains towards the east. Here we encamped in the snow, and suffered much during the whole night from a cold wind from the north.

Saturday, December 24, 1853.

This morning, before we left camp, an old Mexican brought us some ore, which he said is to be found in great abundance near the Tetilla Peaks, but that it is now covered so deeply in the snow as to be difficult to be procured. We believe the specimen he gave us contains silver. When the snow has melted, it will be worth the trouble, perhaps, to explore these mountains thoroughly, with a view to the discovery of precious metals.

DIARY OF MAJOR CARLETON (CONT.)

After travelling north for about two miles this morning, we turned off toward the west, by a road that leads to Albuquerque by the Cañon del Infierno. As we ascended the eastern slope of the mountain, we passed through extensive groves of large pine-trees, suitable for boards and other building purposes. The snow was a foot in depth, and the air dry and cold, as in midwinter in the extreme north. The Canyon del Infierno is 10 miles 562 yards in length. It is very circuitous. The mountains rise abruptly thousands of feet above it on either hand. This makes it a pass of great ruggedness, as well as of a wild and picturesque beauty. Half-way down through it we came to a fine spring of water. The rocks are the same stratified, fossiliferous limestone, which we saw at Los Puertos de Abo. From the mouth of the Cañon del Infierno to Albuquerque, the road descends through an open prairie, entirely destitute of water for the whole distance, which is 20 miles 492 yards.

We arrived at Albuquerque at 8 o'clock in the evening, having marched today 36 miles 317 yards.

****

PREHISTORIC VILLAGE AT SAGUARO NAT. MON.

By Charlie R. Steen, Jr. Park Nat.

On August 19th I visited Saguaro National Monument to inspect some prehistoric village sites which had been reported from that reservation. With Mr. Charles MacGuire, project landscape architect, as a guide I visited two sites.

The first site visited was a shallow rock shelter in the NW $\frac{1}{2}$ of Section 33 T 14 S, R 16 E. The shelter is located under an overhanging rock some 30 feet in length and has a SE exposure. A few sherds and flakes of stone are to be seen on the ground surface, together with a great deal of charcoal which has impregnated the ground. This site is located within 100 yards of the loop road now being constructed but as it lacks importance it would be worthless to attempt to develope it as an added attraction along the road.

After leaving the rock shelter we rode along tortuous and rough trails into Section 4 of T 15 S, R 16 E, to a long spur which extends southwest from the Tanque Verde Mountains.

There is a village of approximately fifty houses located along the top of this ridge, six of which and one trash mound have been dug by unauthorized persons. The floor plans of the dwellings are rectangular and average about 12' x 18' feet. Rains have destroyed the floors of the houses which have been dug but if the digging stopped at floor level the house floors were from two to three feet below the present surface of the ground which has apparently changed very little during the time

Extracts from

The Religious Architecture of New Mexico.

George Kubler

Colorado Springs The Taylor Museum

1940

Missionaries as architects
The term "convento"
Materials used
Windows and doors
Wall thicknesses

Missionaries as architects . . . .

(from "The Religious Architecture of New Mexico", George Kubler, 1940)

p. 9 "Nothing has been said about the architectural knowledge or training of the friars. If their status as men of education be admitted, it must follow that they were capable of acquiring the principles of construction. As Gillet has pointed out in the case of the religious architecture of the sixteenth century in Mexico, the friars were self-trained architects, artistes d'occasion, working out their solutions in direct practice. But they occasionally had the benefit of Spanish workmen, quarry workers and stonemasons, to instruct the Indians in special techniques. Even then, design and the theory of construction were independently acquired. An illustrious case was that of Friar Francisco de Tembleque, who built the 45-kilometer aqueduct of Otumba in seventeen years. In New Mexico, the situation was generically similar. Certain architectural elements based partly upon native practice, and partly upon formal conventions inherited from Europe, were organized by nonprofessional designers into a coherent, practical system. The solution can have been worked out only during construction itself, by men of exceptional teaching and creative ability."

The term "CONVENTO" . . . . .

(from "The Religious Architecture of New Mexico", George Kubler, 1940)

p. 72 "The Spanish term, convento, describes those subsidiary buildings in which the friar-priests and lay brothers lived. English-speaking authors have, almost without exception, translated convento by the English words "monastery" or "convent". Today the usage of "convent" implies a religious retreat for women, while "monastery" bears the connotation of a self-sufficient retreat for meditation and prayer. Today neither of these terms, in its current usage, is applicable to the missionary establishments under discussion. To be sure, the Spanish term convento is itself loosely applied to the New Mexican missions.....
An English term is needed which will be general enough to equal convento, while avoiding the restrictive meanings of "convent" or "monastery"....

In New Mexico, in the seventeenth century, the conventos were inhabited by one friar and in exceptionally large pueblos, such as Acoma and Giusewa, by two. . . In 1754, however, a letter by Father Trigo enumerates the typical mission outfit. The persons employed in the service of the establishment varied between six and twelve, usually including a bell ringer, a cook, two or three sacristans, a porter, two boys for the service of the friars' cells, two or three women to grind corn, and occasionally a gardener. These were of course all Indians, and a few of them lived in the convento itself. . . . . .

An inventory taken at Santa Cruz in 1798 enumerated various living rooms, storerooms, workrooms, a corral, and gardens."

MATERIALS (from chapter of that title in "The Religious Architecture of New Mexico", George Kubler, 1940)

"The materials in which an architectural program is realized not only control the ultimate appearance of the structure, but also intervene in the processes of design, where they figure among the limits to which the projected structure must conform. The building materials of the colonial era in New Mexico are well known: adobe, stone, wood, an occasional window glazing of selenite or mica, and earth colors for the decoration of the walls. The extreme possibilities of these materials were of course never exploited to the limits of colonial technology. . . . . The maintenance of the simple frontier economy, against the inhospitality of the land itself, absorbed nearly all the available time and man power, with little left over for the technical improvement of such commodities as building materials. . . . . .

Adobe. An architecture of sun-dried mud bricks is common to most semi-arid countries of the world, where the material has been used for building purposes since prehistoric times. In the southwestern states of this continent, the bricks are known as adobes (the word derives from an Egyptian hieroglyph for brick, through Arabic to the Spanish adobar, "to daub"--Hodge). The material is a clay soil, which is the result of the disintegration of rock, by various agencies of erosion, into colloidal particles. . . . .

Under ideal conditions, adobe will withstand structural strains and weather erosion. Tests carried out at the University of New Mexico have shown that a safe limit for the height of a wall made of good adobe and laterally supported is about 80 feet. In the churches, however, the height of such walls never exceeds 35 feet. Similar tests have shown that under normal weathering conditions, walls built of a fair quality of clay will wear at the rate of one inch in twenty years. Against these laboratory tests, nevertheless, the documentation of the churches in New Mexico yields an extremely variable impression of the stable and durable properties of adobe construction. At one extreme, certain buildings were constantly in process of rebuilding and repair, as at Albuquerque, where the church built after 1706 had to be restored before the end of the century. . . . At the other extreme, the adobe fabrib of the church in the pueblo on the Black Mesa overlooking San Felipe, abandoned before the close of the seventeenth century and never reoccupied, still presents substantial remains, and might theoretically be rebuilt for use without radical expense."

Stone. (Field stone facing foundation at Acoma, where south bell tower is of irregular stone; some walls at Laguna of coarse stone laid in adobe mortar; in Manzano region are ruined walls of stones broken, probably by stone mauls; only case of characteristically European stone-working technique is reredos carved in 1760, now at Cristo Rey in Santa Fe.)

Wood. (Good wood in mountains, but comparatively inaccessible in colonial times; an account of 1710 refers to wooden scaffolds; a 42-foot beam at Acoma.)

Windows.....

(from "The Religious Architecture of New Mexico," Kubler, 1940)

p. 47 "Two types of window construction occur: one displaying conventional European frames and sashes, and the other a gridiron frame of upright spindles. The gridiron windows are earlier than the sash windows. Common to both is a lintel construction of rough-hewn planks or logs. The frames and sashes often have handmade mortise-and-tenon joints set with wooden pins. The closely set vertical spindles of the gridiron windows are grooved to hold the glazing material.

When and where panes of glass were not available, the gridiron windows were used. Between the spindles, sheets of mica or talc were set. No windows glazed in this fashion have survived, although many were in evidence in the middle of the nineteenth century.."

Doors . . . .

p.48 "The doors themselves are paneled inframes with wooden pegs to hold the tenons in place. One vertical member of the frame is provided at both ends with solid round pins which fit into cuplike sockets in the lintel and sill."

Wall thicknesses in New Mexican churches.

(from "The Religious Architecture of New Mexico," George Kubler, 1940. p.32)

. . . ."At Pecos the south nave wall is 5 feet 9 inches thick, whereas the north wall is 3 feet 9 inches thick. At Acoma the south nave wall is 4 feet 9 inches thick and the north wall measures 7 feet 5 inches. The west nave wall at Giusewa measures 6 feet 9 inches, but the east wall shows an average thickness of 7 feet 6 inches."

(from MISSION MONUMENTS OF NEW MEXICO, Hewett and Fisher; Albuquerque, 1943)

— in library —

MISSION CHURCHES IN NEW MEXICO THAT ANTEDATE TUMACACORI CHURCH:

ACOMA: San Estevan. "...and probably during the 1630's the church of San Estevan was built. It withstood the Rebellion with only slight damage and survives almost in its original form. In 1924 considerable repairs were done to the facade, towers and roof...."

SAN FELIPE: "The present mission was erected during the first quarter of the eighteenth century. The seventeenth century pueblo and mission stood east of the river and were destroyed in the Rebellion of 1680." "..one of best examples of New Mexico mission architecture..."

PICURIS: San Lorenzo. "The present structure was erected after the Reconquest of 1692."

?TAOS: San Jeronimo. "Established during the early years of the seventeenth century, the mission of San Jeronimo was subjected to attack by the Indians within two years. During the Mexican War, in 1847, the church was used as a fortress by the Mexicans and their Indian allies in an encounter with the United States troops. Today, the remaining sections of wall, together with a remnant of the tower, . . ."

COCHITI: San Buenaventura. "...the present church...was built during the early eighteenth century. Its roof and portico were repaired in 1910."

LAGUNA: San Jose. "Its church...was erected in 1699 and is still in use. It is a fine example of Pueblo mission architecture. On the interior walls are extensive mural paintings. Repairs were made by the Committee for the Preservation and Restoration of New Mexico Missions during the 1920's."

JEMEZ: San Diego. "The present mission...was built during the first quarter of the eighteenth century."

ZIA: Nuestra Senora de la Asuncion. "...is Zia pueblo, whose mission was one of the few to escape complete destruction during the Pueblo Rebellion. The church is one of the finest examples of Franciscan architecture in the Southwest.

?SAN ILDEFONSO. San Ildefonso. "...it was rebuilt following the Reconquest. The church one sees today is completely changed in external appearance, due to modern repairs. Within, there are still several fine, old paintings dating from colonial times."

(From MISSION MONUMENTS OF NEW MEXICO, Hewett and Fisher: Albuquerque, 1943)

MISSION QUARAI IN NEW MEXICO THAT ILLUSTRATE TURN-OF-CENTURY CHURCH:

ACOMA: San Estevan. "...and probably during the 1630's the church of San Esteves was built. It withstood the Rebellion with only slight damage and survives almost in its original form. In 1934 considerable repairs were done to the fragade, towers and roof...."

NEW MEXICO: "The present mission was erected during the first quarter of the eighteenth century. The seventeenth century pueblo and mission stood east of the river and were destroyed in the Rebellion of 1680." "...one of best examples of New Mexico mission architecture..."

PICURIS: San Lorenzo. "The present structure was erected after the reconquest of 1692."

TAOS: San Jeronimo. "Established during the early years of the seventeenth century, the mission of San Jeronimo was subjected to attack by the Indians within two years. During the Mexican War, in 1847, the church was used as a fortress by the Mexicans and their Indian allies in an encounter with the United States troops. Today, the remaining sections of wall, together with a remnant of the tower, . . ."

SOCORRO: San Buenaventura. "...the present church...was built during the early eighteenth century. Its roof and portico were replaced in 1910."

LAGUNA: San Jose. "Its church...was erected in 1699 and is still in use. It is a fine example of Pueblo mission architecture. On the interior walls are extensive mural paintings. Repairs were made by the Committee for the Preservation and Restoration of New Mexico Missions during the 1920's."

ISLETA: San Diego. "The present mission...was built during the first quarter of the eighteenth century."

ZIA: Nuestra Senora de la Asuncion. "...is a Zia pueblo, whose mission was one of the few to escape complete destruction during the Pueblo Rebellion. The church is one of the finest examples of Franciscan architecture in the Southwest.

SAN ILDEFONSO: San Ildefonso. "...it was rebuilt following the Reconquest. The church one sees today is completely changed in external appearance, due to modern repairs. Within, there are still several fine

CHURCH AT JUAREZ

Bancroft, Vol. XVII, p. 168 "In the Arch. Sta Fe, MS., it is stated that the Pueblo del Paso del Rio del Norte was founded in 1659. The alluxion is to the mission of Guadalupe del Paso, not to town or presidio."

Kubler, "Religious Architecture of New Mexico", p. 17 "The mission at El Paso, dedicated in 1668, was originally established for liaison purposes, but during the Rebellion it became the sole administrative center for the entire surviving Spanish population of New Mexico."

MISSION AT JUAREZ

For list of some of the supplies and equipment brought by wagon caravan to New Mexico missions between 1664 and 1689, see "Mission Monuments of New Mexico", page 94-97.

For list of some of the supplies and equipment brought by wagon caravan to New Mexico missions between 1664 and 1680, see "Mission Monuments of New Mexico", page 34-37.

MISSION ROLES IN SPANISH FRONTIERS . . . .

(from "The Religious Architecture of New Mexico", George Kubler, 1940)

p. 16 "Such was the situation faced by the early Spaniards. A sparsely populated, hostile, and economically unprofitable area lay before them. Its inhabitants knew and cared little about one another; there was no possibility of dominating a potent territorial chief and then using him to secure control over subordinate tribes. One by one the settlements had to be approached and subjected. Once the area had been brought under control, measures had to be taken to concentrate and stabilize its population. The execution of this aspect of the program devolved upon the friars. The reducciones were one of their achievements, and another was the application of an economic fixative to fluid populations, in the form of the mission establishments. The reduccion provided security for previously scattered villages. Under Spanish direction it was a continuation of the prehistoric process of shrinkage and defensive concentration. . . . . Everywhere, domesticated animals, new crops and food plants, as well as the European utensils and techniques, accrued to Indians from their contact with the friars.

p. 17 Ricard, in his studies of the Mexican aspect of this question as it existed in the sixteenth century, has proposed three classes of mission establishments: missions d'occupation, clustered together in a densely settled area; missions de penetration, usually of impermanent character, in difficult outposts; and missions de ~~penetration, usually~~ liaison, providing links in a chain between the first two types and the center of administration. Of course, each type may be subject to historical change: the mission de penetration characterizes the period of conquest in a local definition, but may later become mission d'occupation, and so on. . . . A typical mission d'occupation was the principal convento of Saint Francis in Santa Fe, mentioned as a new structure in February, 1639; others would be the group of establishments at San Ildefonso, Santa Clara, and San Juan de los Caballeros. . . Liaison institutions between these centers existed at Pojoaque, Tesuque, and Nambe, providing not only local services, but facilities for communication. A typical mission de penetration was the sporadic, troubled evangelization among the Zunis, initiated in 1629, abandoned in 1632, resumed about 1660, and abandoned again in 1672. . . . ."

Texas Missions

Field Work Copy

TEXAS HISTORY

GOLIAD, TEXAS

From Bartlett's "Explorations and Incidents" Vol. I

(Pages 25 to 30)

Towards evening Judge Lea, a gentleman of enterprise and a large landholder, called on me and invited me to his house at Old Goliad about two miles distant. He took a deep interest in the survey we were then making from Indianola to San Antonio, and had accompanied the surveying party when it passed through his lands a day or two before my arrival. Crossed the river in a log canoe, and reached the Judge's residence, a venerable and ruined church, just at sunset. Took a brief view of the ruins of the ancient town while the dim twilight remained.

The present town of Goliad is about two miles from the former town, and at the time of my visit contained about two hundred inhabitants. The old place, which is now in ruins, is situated upon a hill directly upon the west bank of the San Antonio River, at its highest navigable point, and formerly contained several thousand inhabitants. It was originally a Spanish mission, instituted for the purpose of christianizing the Indians, and united within one inclosure a church and fort, while numerous dwellings were clustered under the protection of its guns. The date of its establishment is not known with certainty, the accounts varying from one to two hundred years. The church is the only building in any tolerable preservation, except two or three houses which have been restored, provided withnew roofs, and made into very comfortable dwellings-better, indeed, than modern builders would think of erecting. The church seems to have been designed for the double purpose of a church and a castle. Its massive walls on every side, which measure four feet in thickness, are cemented with a terlime; and to its great strength is owing its fine state of preservation. Its extreme length is 90 feet, its breadth 27 feet. Its roof is a single stone arch from wall to wall, sustained by small buildings or cloisters which project from the sides, and which are connected with the main edifice; a parapet rises above the roof, behind which cannon were formerly planted.

In the various domestic wars of Mexico this was an important place, and frequently changed hands; nor was its importance lost during the struggle for Texan independence, when it was occupied by the Mexican

as well as the Texan forces. Its original name was La Bahia del Espiritu Santo, the Bay Town of Espiritu Santo, because it was originally the place for collecting the revenue of the small ports upon the bay. Hence all persons arriving on the bay with merchandise were obliged to go forty miles into the interior to find the officer of the customs, to whom they had to pay their duties. Similar inconveniences exist at the present day in Mexico, on the Pacific coast: the collector of the port of Manzanillo, for instance, resides at the city of Colima, ninety miles in the interior. This name of La Bahia was changed by the Spaniards about thirty years since, when it began to decay as a religious establishment, to that of Goliad, on account of its great strength.

Around the church are some twenty or more ruined buildings of stone, with nothing but their walls standing. One of these extends about 150 feet southward, and appears, from its small apartments to have been constructed for barracks: its walls, like those of the church, are very massive. A high wall seems once to have surrounded the church, but much of it now lies prostrate. The other buildings, which are detached and of various dimensions, were chiefly used as dwellings. The whole town is in ruins, and presents a scene of desolation, which to an American is at once novel and interesting. Each succeeding capture, of course, impaired the buildings; and after the decisive battle of San Jacinto, the Mexicans evacuated it and destroyed it as far as they were able. The material of these buildings is a soft white sandstone, which underlays the town, and which appears to become hardened when exposed to the air.

We enjoyed the hospitalities of Judge Lea, who is domiciliated in the old church, the interior being in good condition. To this gentleman we are indebted for many facilities for visiting the ruins, and for much information respecting the country adjacent. He had partitioned the church with a slight frame-work about ten feet high, which was covered with calico or brown cotton, the top being open; making it a very comfortable place for the greater portion of the year. After tea we ascended to the roof, to enjoy the cool breeze of the evening, and the beautiful landscape which there opens to the view. Situated on an eminence, the country can be seen for a great distance around. After the moon arose and cast a deep shadow from the ruined walls, and the long belt of fire from the burning prairie shed its red glare on the few clouds that flitted across it, the scene assumed

an aspect of peculiar solemnity and interest. We lingered long to enjoy the fairy-like vision, and until the fatigues of the day warned us that it was time to retire.

The sword has truly given place to the plough-share here; and the inclosure which has been the scene of many a bloody fight, is now employed by the Judge as an experimental garden, in which he has demonstrated the capacity of the soil and climate to produce any of the great Southern crops of cotton, corn, and sugar, as well as the choicest garden vegetables. The church is especially notorious as having been the place where Fannin and his men were confined and massacred. We were fortunate enough to meet with a gentleman, Judge H., who was one of the prisoners, and whose singular escape may be worth relating.

After the battle of Peridida Creek, between Fannin and 275 men on one side, and Urrea with 900 Mexicans on the other, articles of capitulation were signed, according to which, those who surrendered were to be treated as prisoners of war, and either released on parole or sent to some port upon the bay. The articles were drawn up within the Texan lines, and all was arranged in good faith. The prisoners were confined within the fortress of Goliad, where they met others of their countrymen, sufficient in number to make up four hundred. When Santa Anna was informed of their capture, he sent orders for them to be shot. The officers in command remonstrated, but the order was repeated peremptorily. The massacre took place upon the 27th March, 1836, eight days after the battle. The prisoners were marched out of the fort in three divisions, full of high expectations that the time of their release had arrived, and were shot down almost simultaneously by the Mexican soldiery. The gentleman above referred to was in the second division, and owes his escape to the most wonderful presence of mind, and of course of thought. As his division was marching out, heard the report of the muskets, which were fired upon the preceding division. Instantly the truth flashed upon his mind, and his course of action was decided. As he saw the lips of the Mexican officer move to give the order for the soldiers to fire, he fell upon his face as if dead. The soldiers stood within six feet of the prisoners, and fired with fixed bayonets. As soon as they had fired, they rushed upon the victims with their bayonets to complete the slaughter. Judge H. was pierced through the shoulder, bearing the wound without showing signs of life. After the execution, the cavemgers and camp followers

came to rob the dead. A Mexican, in cutting away his hunting shirt to get at his coat which was beneath, wounded him in the neck, at which he let escape some expression of pain; whereupon the Mexican, finding him still alive, beat him upon the head with the butt of his escopetto until he supposed life extinct, and then went on with his robbery. All this time the Judge retained a consciousness of his situation; and when all had left the bloody scene, he crawled, as well as his remaining strength would allow, to some concealment near the river, and at dark made his escape. After wandering three days without food, he obtained assistance from some kind-hearted Mexicans, and finally reached the coast in safety.

As near as can be ascertained, about 375 Texans fell victims to this treachery. They are all buried in one common grave, with no other monument than the prison's ruined walls.

The situation of Old Goliad is well chosen, and from the top of the old church a view of surpassing beauty is obtained. The fertile valley of the San Antonio lies below; and all around the land stretches away in gentle undulations, not densely enough wooded to form a wilderness, but bearing here and there clumps of trees, disposed so regularly as to give the landscape a rural aspect. So closely do the clusters of live-oaks resemble orchards, and the recently burnt prairies, with the newly-springing grass, meadows, that one finds it difficult to convince himself that he is not passing through a highly cultivated district. Upon the opposite side of the river are the ruins of another mission-the Aranzasa-named from a tribe of Indians now extinct. This building, like the church before described, was surrounded with the ruins of lesser ones. It is of smaller dimensions than the one tenanted by Judge H.; but with restored walls, openings for windows, and a modern roof, it has been changed into a comfortable dwelling. It is occupied by a gentleman from New York, who lives in a style of elegance that we were quite unprepared to meet with in Western Texas.

Field Work. Copy

From Bartlett's "Explorations and Incidents" Vol. I
(Pages 41 to 45)

One of the principal objects of interest to the stranger in San Antonio is the Alamo, memorable for its brave defence by Travis, Crockett, Bowie, and others, who only gave up the contest with their lives. The building was originally a mission. It is now occupied as a storehouse by the United States Quartermaster's Department, and retains but little of its former appearance. The principal doorway, ornamented in the Moorish style, remains tolerably perfect.

We saw in the County Clerk's office a large collection of old Spanish documents, which have been accumulating ever since the first settlement of the town. Doubtless their careful perusal by some persevering antiquary would develope many interesting facts connected with the early history of the country. It is to be hoped, that measures will ere long be taken by the enterprising State to which they relate to rescue them from oblivion and decay, and cause them to be collated and given to the world. The Northern States have spent immense sums in sending agents to England, France, and Holland, to procure similar papers from the State archives to illustrate their Colonial History. Texas possesses in her own record offices voluminous documents of equal value, in which the scholar and historian of every State feels an interest second only to that of her own people.

Near the town and upon the banks of the San Antonio River are the remains of extensive mission establishments. We found time to pay a short visit to those of San Jose, San Juan, and Concepcion. There is another, La Espada, which we did not visit.

A ride of about five miles through a mezquit country brought us to the mission of San Jose, situated upon the right bank of the river. This was the largest and wealthiest mission; and its buildings were constructed with greater display of art, and still remain in better preservation, than the others. Entering the inclosure formed by the granary and other out-buildings, we alighted in front of the main edifice or church. This is constructed of stone, and plastered. The principal doorway is surrounded by elaborate carving, which extends the whole length of the front, and includes

numerous figures, among which San Jose, the patron of the church, and the Virgin and Child are conspicuous. The material of this work has the appearance of stone; but we found on examination that it was a hard kind of stucco. The action of the weather has done much to destroy the figures; and the work of ruin has been assisted by the numerous military companies near here, who, finding in the hands and features of the statues convenient marks for rifle and pistol shots, did not fail to improve the opportunity for showing at the same time their skill in arms and their contempt for the Mexican belief. That portion of the front of the church not covered with carving, was ornamented with a sort of stenciling in colors, chiefly red and blue. But few traces of this have withstood the rain. The most perfect portion of the church is an oval window in the sacristy, which is surrounded with scrolls and wreath-work of exceeding grace and beauty.

The interior presents but little of interest. The dampness has destroyed the frescoes upon the walls, and the altar has been stripped of its decorations. It is now seldom used for religious purposes; as the Mexicans of the neighborhood are poor, and cannot often afford the fifty dollars charged by the San Antonio priests for officiating.

The convent in the rear of the church, as that portion of the building occupied by the fathers is called, remains in tolerable preservation, and is at present inhabited by an American who cultivated the adjoining lands. A fine view of the surrounding country may be had by ascending the tower, which is accomplished in part by means of a spiral staircase, and in part by a rude ladder, consisting of a stick of timber with notches cut in its sides. The plan of the building evidently included two towers; but only one of them was ever completed.

About two miles below San Jose, and upon the opposite side of the river, are the ruins of San Juan. This was never a building of such pretensions, and is in a more ruinous state than San Jose. The interior shows the remains of some exceedingly rude paintings; and we noticed that the earthen floor was broken up in several places where graves had recently been made.

It was late when we reached Concepcion, which is nearer the town than either of the other missions. The two towers and dome of the church make quite an imposing appearance when seen from a distance; but on approaching it, we found it not only desolated but, desecrated; The church portion being used as an inclosure for cattle, the filth from which covered the floor to the depth of a foot or more. Myriads

of bats flitted about, which chattered and screamed at our invasion of their territory;and we found nothering of interest within the church to repay us for encountering their disagreeable presence.

TEXAS MISSIONS

By Ruth E. Butler, Historical Division
National Park Service

(Ed. Note: The following brief notes concerning Texas missions were gathered by the Historical Division, Washington, D. C. Incomplete as they are, we are publishing them as comparative material for the work now being done by the Park Service in the Arizona, Sonora, and New Mexico chains. As additional information is accumulated, we hope to make it available in this Supplement.)

San Francisco de los Texas (1)

This, the first permanent mission in eastern Texas, was founded by Father Massanet on June 1, 1690. It was situated somewhere in the northeastern part of Houston County, about seven miles west of the Neches River. By order of the viceroyal government, it was abandoned in October, 1693, after the mission bells had been buried.

Santisimo Nombre de Maria

Santisimo Nombre de Maria founded in October, 1690, and San Francisco de los Texas constituted the early outposts of Spanish influence in Texas, and were intended as a threat to French intervention in that region. The Santisimo Nombre de Maria was abandoned by decree of the government in 1693, because immediate danger of French encroachment ceased and because the Spanish officials were of the opinion that the Gulf region offered little inducement for colonization to the foreign nation.

San Francisco de los Neches (2)

This mission was founded in 1716 among the Neches about five miles southwest of Alto in Cherokee County. It was transferred to San Antonio in 1730.

Purisima Concepcion

The exact site of the Purisima Concepcion is unknown, but it was probably between the Trinity and Sabine rivers. Founded on July 7, 1717, it had only a short independent existence, for it was transferred to San Antonio in 1730.

San Jose de los Nazones

Founded in 1716, this mission was transferred to San Antonio in 1730, and its name was changed to San Juan Capistrano.

Nuestra Senora de Guadalupe (3)

Nuestra senora de Guadalupe formerly stood in the center of the present

town of Nacogdoches. It was established in 1716. Owing to the invasion of the French in 1719, the mission was closed for a short period, but in 1721 it was re-established in the same spot. Because of the hostility of neighboring Indian tribes, it was abandoned in 1733.

Nuestra Senora de los Dolores (4)

This mission was erected in 1717 by Fray Margil on the site of the present town of St. Augustine, in San Augustine County. It was temporarily closed in 1719 at the time of the French incusion but was later restored.

San Antonio de Valero (5)

San Antonio de Valero was founded in 1718 by Father Olivares and named in honor of the Marques de Valero, Viceroy of Mexico. It is famous today as the Alamo, site of the massacre of 1836 at the hands of Santa Anna. In 1719 the mission became a refuge for missionaries in eastern Texas when they were threatened by the French in Louisiana, and Father Margil and others remained there as refugees until 1721, when they were relieved by an expeditionary force sent by the government. Father Santa Ana, President of the Queretaran missions in Texas, used San Antonio as his headquarters from 1731 to 1734. Between 1731 and 1745 this mission served more than forty neighboring tribes and exercised great influence among the natives. About 1762 a church of quarried stone was built and a two-story convent fifty by fifty varas with two patios and arched cloisters served as an abode for the Queretarans. The pueblo which San Antonio served consisted of seven rows of stone houses with doors, windows and arched porticoes. A stream of water, bordered by willows and fruit trees, flowed through the patio. Weaving, agriculture and animal husbandry were taught in the mission school, and its personnel numbered many able and distinguished priests. About 1750 Father Francisco Mariano de los Dolores y Viana, who succeeded Father Santa Ana as President of the Queretaran missions, made San Antonio his headquarters. Several of the padres distinguished themselves in a literary way. In its spiritual influence among the natives, San Antonio had no rival.

San Jose de Aguaya (6)

The Franciscan mission known as San Jose de Aguaya was located in San Antonio, about four miles below the San Antonio de Valero Mission. Begun in 1720, and built of stone, it commonly acclaimed as one of the leading missions of its time. The architecture and sculptoring are unusually fine and are among the best examples of mission art in America.

Hallenbeck's succinct and revealing description is as follows: "This, the finest of the Texas missions and, until it began falling to ruin, one of the three finest in America, was begun in 1720 and finished in 1731. Its beautifully carved facade and baptistery windows, by the Spanish artist Huisar, are studied by artists from all parts of the civilized world. In

1868 a part of the north wall of the church fell in, and during midnight Mass on Christmas Eve, 1874, the beautifully colored dome, which the Indians called 'Day Star of their Manitou', collapsed. The structure has otherwise been greatly damaged by vandals and treasure hunters, and several of the statues on the facade have been maliciously broken."

The mission originally had a patio containing eight acres, surrounded by a high stone wall, with fortified towers at the corners. The original bells are undisturbed, as well as some paintings which were sent from Spain, but the murals have almost disappeared, and Huisar's sculptoring has been badly damaged by the elements and by vandals. The building is otherwise in a bad condition, in fact on the verge of collapse.

Architecturally, San Jose is important as the embodiment of Moorish features in mission design. Huisar is said to have been a descendant of the architect of the Alhambra, and many curious legends have been circulated concerning him.

San Xavier de Naxera (7)

San Xavier was founded in 1722 by the Marques de Aguayo on the outskirts of San Antonio, where the mission of Concepcion now stands. It was not very successful and in 1726 it was merged with San Antonio de Valero.

Espiritu Santo (8)

This mission, established in 1722, was first placed on the site of Fort St. Louis founded by La Salle. Owing to the barbarous nature of the Indians it served, it was transferred from time to time to other localities. Its ruins can be seen today near the present city of Victoria in Texas.

Purisima Concepcion at San Antonio (9)

This was one of the churches transferred to San Antonio in 1731. By 1745 a stone church was about half completed; an adobe building was being used temporarily for religious services. The stone church was completed and in use by 1762. It had vaulted ceiling, dome, and bells and contained a sacristy and a chapel. The neophytes lived in pueblo of two rows of houses, partly of stone and partly of thatch. The convento was a two-story stone building. A stone granary and stone house for the soldiers completed the unit. The workshop at the mission contained three looms and wool and cotton cloth were woven.

San Francisco de la Espada (1731) (10)

This mission was transferred to San Antonio in 1731. The neophytes, numbering 137, absconded in a body in 1737, but by 1745 work at the -

mission had become stabilized, a stone church was in progress of erection, and a stone convento having two cells above and two offices below, had been built. This was later enlarged. There was a stone granary and a pueblo consisting of three rows of stone houses for the neophytes.

San Juan Capistrano (11)

This mission was established at San Antonio in 1730. The stone building erected later has been extensively repaired, but retains its original form. Its storerooms, living rooms, dormitories, offices, shops, schoolrooms, kitchens and refectories have been identified. By 1762 two hundred and three Indians lived at the mission and its workshop and farms were the scene of great activity. Only San Francisco excelled San Juan in the raising of stock.

San Francisco Xavier (1746)

San Ildefonso

San Ildefonso, located in central Texas, was erected between 1748 and 1749, under the supervision of Father Santa Ana.

Candelaria

This mission was founded by Santa Ana on the San Gabriel River in 1749. It was abandoned in 1755 owing to friction between the soldiery and the Franciscans and after the murder of Father Ganzabal.

Nuestra Senora del Rosario

The foundation of this church was begun in November, 1754. The original wooden church was later replaced by a stone structure. The mission had little success, however, only twenty-one souls having been converted after four years.

San Marcos (1755)

This mission was founded on the San Marcos River in August, 1755, but was apparently of little importance.

Nuestra Senora de la Luz (12)

Established in 1756 on the Trinity River, near the north line of Chambers County, this mission was intended as a barrier to further encroachments by the French. Storm, flood, mutiny and disease combined to weaken its usefulness, and in 1771 it was abandoned.

OKLAHOMA
ARK.
LA.
NEW MEXICO
TEXAS
CHIHUAHUA
COAHUILA
NUEVO LEON
+ Amarillo
+ Lubbock
Dallas
+ Ft. Worth
+ Austin
Houston +
San Antonio
+ El Paso
Brownsville
Monterey + LEON
1
2
3
4
5, 6, 7
8
9, 10, 11
12
13
14

Nuestra Senora de Guadalupe

This mission was established in 1757 on the Guadalupe River, but was abandoned the following year due to the fact that it lacked a garrison sufficient to protect it against marauding Indians.

Mission Santa Cruz de San Saba (13)

Santa Cruz was located on the San Saba River, near Menardville, Texas. It was founded in 1757 and dedicated particularly to the salvation of the fierce Apache Indians. Its career was short, however, for on March 16, 1758, it was attacked by the Comanches, two of its priests were killed, and the mission practically destroyed.

Mission San Lorenzo

Situated on the east side of the Rio de Las Nueces, this mission was founded in 1762 at the request of the Lipan Indians who were then apprehensive of the Comanches. The mission had a fruitless existence for it exerted but little influence upon the savages. It was abandoned about 1769.

Nuestra Senora del Refugio

This was the last mission founded by the Franciscan Fathers in Texas. It was erected in 1793 near the junction of the San Antonio and Guadalupe Rivers. The site was ill adapted to the purposes of the Fathers and was abandoned on January 10, 1795. The mission was reestablished some thirty miles south of the garrison of Espiritu Santo and its name survives in the modern town of Refugio. Its ruins can be seen today at the Copano Bay.

****

NOTES ON HOW TO BUILD A HOGAN

By James Brewer, Jr.

I advance the following information, not because you may want to build a hogan, but because when you get into a good one and are thankful for the warmth or for the shade you might sit down and wonder just how it is put together.

The first thing you must do is select a large forest with many different sized trees. Three forked ones are necessary for the main supports (assuming you are going to build a hogan of the old type ((Coolidge, "The Navaho Indian," page 79))); two long ones for the door structure; and many others of all sizes for filling in.

Next cut and trim what looks like enough trees to build four big hogans or one Union Depot; then cut about the same amount again; you now

TEXAS MISSIONS

GOLIAD, TEXAS

From Bartlett's "Explorations and Incidents" Vol. I

(Pages 25 to 30)

Towards evening Judge Lea, a gentleman of enterprise and a large landholder, called on me and invited me to his house at Old Goliad about two miles distant. He took a deep interest in the survey we were then making from Indianola to San Antonio, and had accompanied the surveying party when it passed through his lands a day or two before my arrival. Crossed the river in a log canoe, and reached the Judge's residence, a venerable and ruined church, just at sunset. Took a brief view of the ruins of the ancient town while the dim twilight remained.

The present town of Goliad is about two miles from the former town, and at the time of my visit contained about two hundred inhabitants. The old place, which is now in ruins, is situated upon a hill directly upon the west bank of the San Antonio River, at its highest navigable point, and formerly contained several thousand inhabitants. It was originally a Spanish Mission, instituted for the purpose of christianizing the Indians, and united within one inclosure a church and fort, while numberous dwellings were clustered under the protection of its guns. The date of its establishment is not known with certainty, the accounts varying from one to two hundred years. The church is the only building in any tolerable preservation, except two or three houses which have been restored, provided withnew roofs, and made into very comfortable dwellings-better, indeed, than modern builders would think of erecting. The church seems to have been designed for the double purpose of a church and a castle. Its massive walls on every side, which measure four feet in thickness, are cemented with waterlime; and to its great strength is owing its fine state of preservation. Its extreme length is 90 feet, its breadth 27 feet. Its roof is a single stone arch from wall to wall, sustained by small buildings or cloisters which project from the sides, and which are connected with the main edifice; a parapet rises above the roof, behind which cannon were formerly planted.

In the various domestic wars of Mexico this was an important place, and frequently changed hands; nor was its importance lost during

as well as the Texan forces. Its original name was La Bahia del Espiritu Santo, the Bay Town of Espiritu Santo, because it was originally the place for collecting the revenue of the small ports upon the bay. Hence all persons arriving on the bay with merchandise were obliged to go forty miles into the interior to find the officer of the customs, to whom they had to pay their duties. Similar inconveniences exist at the present day in Mexico, on the Pacific coast: the collector of the port of Manzanillo, for instance, resides at the city of Colima, ninety miles in the interior. This name of La Bahia was changed by the Spaniards about thirty years since, when it began to decay as a religious establishment, to that of Goliad, on account of its great strength.

Around the church are some twenty or more ruined buildings of stone, with nothing but their walls standing. One of these extends about 150 feet southward, and appears, from its small apartments to have been constructed for barracks: its walls, like those of the church, are very massive. A high wall seems once to have surrounded the church, but much of it now lies prostrate. The other buildings, which are detached and of various dimensions, were chiefly used as dwellings. The whole town is in ruins, and presents a scene of desolation, which to an American is at once novel and interesting. Each succeeding capture, of course, impaired the buildings; and after the decisive battle of San Jacinto, the Mexicans evacuated it and destroyed it as far as they were able. The material of these buildings is a soft white sandstone, which underlays the town, and which appears to become hardened when exposed to the air.

We enjoyed the hospitalities of Judge Lea, who is domiciliated in the old church, the interior being in good condition. To this gentleman we are indebted for many facilities for visiting the ruins, and for much information respecting the country adjacent. He had partitioned the church with a slight frame-work about ten feet high, which was covered with calico or brown cotton, the top being open; making it a very comfortable place for the greater portion of the year. After tea we ascended to the roof, to enjoy the cool breeze of the evening, and the beautiful landscape which there opens to the view. Situated on an eminence, the country can be seen for a great distance around. After the moon arose and cast a deep chadow from the ruined walls, and the long belt of fire from the burning prairie shed its red glare on the few clouds that flitted across it, the scene assumed

an aspect of peculiar solemnity and interest. We lingered long to enjoy the fairy-like vision, and until the fatigues of the day warned us that it was time to retire.

The sword has truly given place to the plough-share here; and the inclosure which has been the scene of many a bloody fight, is now employed by the Judge as an experimental garden, in which he has demonstrated the capacity of the soil and climate to produce any of the great Southern crops of cotton, corn, and sugar, as well as the choicest garden vegetables. The church is especially notorious as having been the place where Fannin and his men were confined and massacred. We were fortunate enough to meet with a gentleman, Judge H., who was one of the prisoners, and whose singular escape may be worth relating.

After the battle of Peridida Creek, between Fannin and 275 men on one side, and Urrea with 900 Mexicans on the other, articles of capitulation were signed, according to which, those who surrendered were to be treated as prisoners of war, and either released on parole or sent to some port upon the bay. The articles were drawn up within the Texan lines, and all was arranged in good faith. The prisoners were confined within the fortress of Goliad, where they met others of their countrymen, sufficient in number to make up four hundred. When Santa Anna was informed of their capture, he sent orders for them to be shot. The officers in command remonstrated, but the order was repeated peremptorily. The massacre took place upon the 27th March, 1836, eight days after the battle. The prisoners were marched out of the fort in three divisions, full of high expectations that the time of their release had arrived, and were shot down almost simultaneously by the Mexican soldiery. The gentleman above referred to was in the second division, and owes his escape to the most wonderful presence of mind, and of course of thought. As his division was marching out, heard the report of the muskets, which were fired upon the preceding division. Instantly the truth flashed upon his mind, and his course of action was decided. As he saw the lips of the Mexican officer move to give the order for the soldiers to fire, he fell upon his face as if dead. The soldiers stood within six feet of the prisoners, and fired with fixed bayonets. As soon as they had fired, they rushed upon the victims with their bayonets to complete the slaughter. Judge H. was pierced through the shoulder, bearing the wound without showing signs of life. After the execution, the cavengers and camp followers

came to rob the dead. A Mexican, in cutting away his hunting shirt to get at his coat which was beneath, wounded him in the neck, at which he let escape some expression of pain; whereupon the Mexican, finding him still alive, beat him upon the head with the butt of his escopetto until he supposed life extinct, and them went on with his robbery. All this time the Judge retained a consciousness of his situation; and when all had left the bloody scene, he crawled, as well as his remaining strength would allow, to some concealment near the river, and at dark made his escape. After wandering three days without food, he obtained assistance from some kind-hearted Mexicans, and finally reached the coast in safety.

As near as can be ascertained, about 375 Texans fell victims to this treachery. They are all buried in one common grave, with no other monument than the prison's ruined walls.

The situation of Old Goliad is well chosen, and from the top of the old church a view of surpassing beauty is obtained. The fertile valley of the San Antonio lies below; and all around the land stretches away in gentle undulations, not densely enough wooded to form a wilderness, but bearing here and there clumps of trees, disposed so regularly as to give the landscape a rural aspect. So closely do the clusters of live-oaks resemble orchards, and the recently burnt prairies, with the newly-springing grass, meadows, that one finds it difficult to convince himself that he is not passing through a highly cultivated district. Upon the opposite side of the river are the ruins of another mission-the Aranama-named from a tribe of Indians now extinct. This building, like the church before described, was surrounded with the ruins of lesser ones. It is of smaller dimensions than the one tenanted by Judge H.; but with restored walls, openings for windows, and a modern roof, it has been changed into a comfortable dwelling. It is occupied by a gentleman from New York, who lives in a style of elegance that we were quite unprepared to meet with in Western Texas.

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

Region Three
Santa Fe, New Mexico

July 20, 1949

Memorandum

To: Superintendent, Tumacacori National Monument

From: Regional Archeologist

Subject: Historical Statement, San Jose Mission

Attached, as of possible interest to you, is a copy of a historical statement on San Jose Mission National Historic Site as recently revised.

Erik K. Reed
Regional Archeologist

Attachment

GENERAL INFORMATION

Name and location:

San José Mission National Historic Site, San Antonio, Bexar County, Texas; within the city limits of San Antonio, on eastbound Highway U.S. 281 (Texas 24).

Description and significance:

The most beautiful architecturally and the best preserved of the Texas missions, and one of the most important historically in Texas, San José y San Miguel de Aguayo is the "Queen of the Missions of New Spain," and a cultural and historical monument of the first order. One of the finest Spanish missions in North America, San José is representative of the great chains of missions established in the New World by the regular orders of the Church during Spain's greatness as a colonial power.

Period of Importance:

The middle half of the eighteenth century, 1730-1780.

Sequence of Use:

- Established on February 23, 1720, for local tribes of Rehabilitacion Indians; buildings constructed from 1720 through 1790, forming a quadrangle; an important and flourishing mission 1730-1780.
- Construction of the present church began on May 29, 1768, nearly completed in 1777, finished by 1781.
- Dealine, as generally in the missions of the northern frontier, after the 1780's; officially secularized in 1793 and taken over by the diocesan priests. Entirely abandoned early in the nineteenth century; served for a few days in December 1835 as the headquarters of General Cos after his surrender of San Antonio to the Texans. The church repaired about 1840 for occasional services.
- Friary and seminary of benedictine fathers from Pennsylvania, 1931-1937; the church repaired and the convento extensively rebuilt.
- After collapse of the dome, and of the north wall of the church in 1868, gradual disintegration, followed by rehabilitation and restoration 1912-1937; a functioning parish church since 1937. Mission quadrangle and old mill restored. A new Franciscan friary built, adjoining the mission, in 1931-1933. The entire mission designated a National Historic Site under a cooperative agreement between the Church, the state of Texas, and the Secretary of the Interior, on May 5, 1941.

Evaluation:

San José is outstanding among the Spanish missions of Texas; and few of the missions of New Mexico, Sonora, and California surpass or equal it in interest, importance, or beauty. San José is well located for park purposes, on the outskirts of the most historic city in Texas. As do its sister missions, San José commemorates and symbolizes the faith, energy, and courage of the Franciscan missionaries who spread Christian civilization in the provinces of New Spain.

SIGNIFICANCE STATEMENT

"The mission of San Jose y San Miguel de Aguayo....is, in truth, the first mission in America, not in point of time, but in beauty, plan, and strength, so that there is not a presidio along the entire frontier line that can compare with it....A new church is being built....This building, because of its size, good taste, and beauty, would grace a large city as a parish church....The facade is very costly because of the statues and ornaments with which it is heavily decorated....In a word, no one could have imagined that there were such good artists in so desolate a place." — Fray Juan Agustin Morfi, History of Texas, 1778.

"San Jose Mission is the most beautiful of all, and its carving is surely a joy forever. The hand that chiseled the wonderful facade....was one of marvelous cunning ...The doorway, pillar and arch, is daring in its unique ornamentation — showing in its combination of form and impression of Moorish outline. Otherwise the whole facade is rich Renaissance...." — William Corner, San Antonio de Bexar, 1890.

"The south window of the nativity....is considered by connoisseurs to be the most simple original piece of Spanish-Colonial ornamentation existing in America.... The carving is bold and daring, but exquisite in line and curve...." — Harvey P. Smith, Romantic San Antonio, 1936.

[illegible]

General Chronological Summary.

Spanish control of Texas began to center on the San Antonio River with the establishment early in 1718 of the mission of San Antonio de Valero ("the Alamo") and the presidio of San Antonio de Bexar. Two years later, a second mission, administered by a different college of Franciscans, was established nearby, three leagues downstream. February 2, 1720, and was named San Jose y San Miguel de Aguayo. Construction of mission buildings was completed by 1731, in which year also the size and importance of San Antonio de Bexar were greatly enhanced by the arrival of settlers from the Canary Islands (15 families, 56 individuals), to found the Villa San Fernando de Bexar, and the removal from east Texas and reestablishment here of three additional missions - Purisima Concepcion de Acuna, San Juan Capistrano, and San Francisco de la Espada. The Franciscan missions of Texas were at their height between 1750 and 1760. Large new churches were begun at San Jose and San Juan Capistrano and San Antonio de Valero in the 1760's and completed in the 1780's. Secularization of the Texas missions began around 1770; depopulation, decline, and abandonment followed. Fierce battles were fought at two of the San Antonio missions, Concepcion and the Alamo, in the Texas Revolution in 1835-36.

Texas as an Interior Province of New Spain.

The first exploration of Texas -- aside from unintended crossings such as that of Cabeza de Vaca in 1528-36[1] and that of three Englishmen in 1568[2] -- and the first colonization of Texas by the Spanish, with founding of missions around Nacogdoches, 1690 to 1693, were brought about by the approach of France toward the frontiers of New Spain and particularly the impermanent French colony of Fort St. Louis founded by La Salle on the Texas coast in 1685[3].

Reoccupation of Texas, after twenty years' abandonment to the Indians, commenced with re-founding of missions in the Nacogdoches area in 1716, again due to French encroachments from Louisiana. In the next fifteen years, Spanish control of Texas became more or less firmly established, with the founding of missions and presidios and the organization of a province of New Spain.

---

1 Cleve Hallenbeck, The Journey of Alvar Nunez Cabeza de Vaca, Glendale (A. H. Clark), 1940.

2 A. de Salyer, "Across Aboriginal America: Journeying Through Texas in 1568," Southwest Review XVI-4, 1931, 467-481 (includes transcript of David Ingram's relation from the first edition, 1589, of Hakluyt's voyages).

3 W. E. Dunn, Spanish and French Rivalry in the Gulf Region of the United States, 1678-1702, University of Texas Bulletin, Austin, 1917.

"In the middle eighteenth century, Texas occupied an important position on the rtheastern frontier of New Spain. From to 1762 it was the buffer province between nce and Spain in their contest for empire on this continent. The interval between 31 and 1763 was one of testing the original establishments rather than of founding w ones. The period from 1763 to 1778 was one of numerous expansion projects looking the occupation of new frontiers and to the provision of new elements of defense. e next quarter-century was characterized by an interesting series of readjustments ensioned by Spain's acquisition of Louisiana. The keynote to the period following e transfer was one of reorganization....

"At the close of the first third of the eighteenth century, Texas was distinctly buffer province. The two principal factors which made it worthwhile at the time to cupy the district were its French neighbors and its native inhabitants. By 1731 anish claims to most of the region had been vindicated and the evilness of the rvuse Crown, but little more....During all of this time, the country west of the per Nueces was connected historically with Coahuila, Nueva Vizcaya, and New Mexico ther than Texas....

"The points of occupation at that time fell into two distinct groups, one lying tween the Neches and the Red Rivers, the original Texas; another in the San Antonio d Guadalupe Rivers. The capital of the province was (not San Antonio but —) Los nes, a military post 15 miles west of the Red River and facing the French settlement Natchitoches. The center and defense of the western settlements was the presidio San Antonio de Bexar. Around about San Antonio and between there and La Bahia, tle ranches were springing into existence. As yet, the Texas establishments depended largely on supplies brought from the outside. From Mexico, Saltillo, and San ian Bautista [— presidio on the Rio Grande near modern Eagle Pass], therefore, came ck trains loaded with provisions for missions, garrison, and settlers....

"As an administrative unit, Texas was a part of the Kingdom of New Spain. In vil and military affairs, the province was subject directly to the Viceroy and to e Audiencia of Mexico, and in ecclesiastical matters to the Archbishop of adalajara. The government of Texas, apart from the missions, was almost wholly litary. The villa of San Fernando de Bexar, the only civil community in the prove, had its own cabildo and a modicum of self-government. All important matters ..were referred directly to the Viceroy." — H. E. Bolton, 1915 (Texas in the ddle Eighteenth Century, [illegible], Berkeley; Chapter I).

The Significance and Function of the Frontier Missions.

The missions of northern New Spain were frontier institutions and agencies of the te as well as the Church: "As viewed by the government, the work of the missionas was to assist in extending, holding, christianizing and civilizing the frontiers. ing among the outlying tribes, they were often most useful explorers and diplotic agents....Spanish policy looked to the civilizing of the Indian as well as to e holding of the frontier, and it saw in the mission the best possible agency for ging this about. Since Christianity was the basic element of European civilizan, and since it was the acknowledged duty of the State to extend the Faith, the rst task of the missionary was to convert the heathen. But neither the State nor e Church in Spanish dominions considered the work of the missionary as ending here.

f the Indian were to become either a worthy Christian or a docile subject, he must e disciplined in the rudiments of civilized life. This task likewise was turned over o the missionary. Hence the missions were designed not only as Christian seminaries, ut also as so many industrial and agricultural schools. The central feature of every uccessful Spanish mission was the Indian pueblo....The mission villages were organized into communities with limited self-government,....closely supervised." — T. N. ilton, loc. cit.

Along the Texas gulf coast, the fierce Karankawa were unsatisfactory customers or Christian civilization.[4] In the west and north the wild Comanches and Apaches were ardly more amenable, and the powerful Coahuiltecan tribes were generally allied with the omanche in the eighteenth century. In east Texas, however, the Tejas or Hasinai roup, and the related Caddo proper on Red River, were settled and peaceful Indians; nd in the country from the San Antonio region to the Rio Grande, there were numerous eak and unsettled Coahuiltecan-speaking tribes, from among which the San Antonio and a Bahia missions principally gathered their converts. These people are very little-nown; evidently they were quite amenable to Catholic Spanish influences, became anish-speaking individuals, and early lost their tribal identity and aboriginal ulture.

The Franciscan missions of Texas brought the Coahuiltecan Indians not only spiritual ministration but also considerable changes in general culture — substantial omes grouped in permanent settlements, woven clothing, metal tools, Spanish names nd customs and musical instruments, and livestock and crop plants. Cattle, pigs, heep and goats, horses and mules, poultry; watermelons and muskmelons, peach-trees, hili peppers, grapevines and fig trees, beans and lentils, sweet potatoes, cotton, ugar-cane, and other plants were introduced.

The order of Friars Minor was first and foremost in the Christianization of New pain. As early as 1500, while the conquest of Mexico was in its first stages, twelve ranciscans were sent from Spain to begin formally the conversion of the New World. y the end of the sixteenth century, there were some 100 convents and innumerable hurches in New Spain. Of the convents, 100 were Franciscan, 90 were Dominican, and 5 Augustinian. In the northern frontier, Franciscan activity expanded into northern ew Mexico at the end of the sixteenth century, and across Texas in the last decade of he seventeenth.

Two separate Franciscan colleges of Propaganda Fide in Mexico, at Querétaro and Guatemala, participated, and successively competed, in the task of conversion and control of the Indians of Texas. The college of Santa Cruz de Querétaro had been established in 1683 by Fr. Antonio Linaz de Jesus Maria; that of N. S. de Guadalupe de Guatemala was founded in 1750 by the venerable Father Antonio Margil de Jesus. San Juan y San Miguel de Aguayo was a Guatemalan mission, established at the instigation of Father Margil himself. In 1772, all the Texas missions were placed under the care of Guatemala. (Both colleges were abolished in 1820.)

---

4. cf. E. D. Dalby, "The Founding of Mission Espiritu," Quarterly of the Texas State Historical Association, 1900.

The Beginnings of San Antonio.

The missions of East Texas, on the frontier of French Louisiana, were reestablished by the Aguayo expedition in 1716, but were insufficiently protected and inadequately provisioned. The need for a half-way station between the Rio Grande and the new establishments was evident, and was sharpened by knowledge in 1716 of extensive French preparations for strengthening and expanding their settlements and their trade. 1716 also, Father Antonio Olivares earnestly proposed to the Viceroy the founding a new mission on the river of San Antonio de Padua, and the transfer thither, to serve as a bulwark, of the Zarame Indian converts then at the mission of San Francisco Solano, on the Rio Grande, founded by Fr. Olivares in 1700. The proposal was studied and approved, and a party headed by Don Martin de Alarcon, newly appointed Governor of Coahuila and Texas, escorted Fr. Olivares to the site of San Antonio de Valero (later known as "The Alamo") were founded in May 1718. Fr. Olivares, and other missionaries, promptly rapidly congregated numerous Indians at San Antonio de Valero; a number soldiers and families of settlers occupied the Villa de Bejar.

The Founding of San Jose Mission.

Two years after the first Spanish establishment at San Antonio de Bexar, a second mission was established in the same vicinity. Father Antonio Margil de Jesus, one of the great pioneer missionaries of Central America and founder of the Franciscan college Zacatecas,[5] had been instrumental in the reestablishment of missions in east Texas 1716; when these failed to prosper, and lay open to French attack, which caused the guards to retire to Bexar in 1719, Father Margil appealed to the new governor of Coahuila and Texas, the Marquis de Aguayo, to found a new mission on the San Antonio River.

The site was selected, and on February 2, 1720, the mission of San Jose y San Miguel de Aguayo was established by the Lieutenant-Governor, Captain Juan Valdez. Although objection was raised by Father Antonio Olivares of the Querretaran mission San Antonio de Valero to the installation of a mission of the Zacatecan college so close, a site was selected only about three leagues down the San Antonio River from the former mission.

Father Olivares, the Indians from the San Antonio de Valero mission, Father Margil himself, Captain Cardenas, who was now in San Antonio with eighty soldiers, Carlos Flores, Captain Lorenzo Garcia, and Indians of the Pampopa, Pakinjane, and Pastia tribes were assembled to take part in the ceremonies.

The ceremonies at the founding of San Jose y San Miguel de Aguayo were typical of those establishing new missions. When all of those who had been summoned by Captain Valdez were assembled, an interpreter was appointed to communicate with the Indians. He told the Indians, who were about to be congregated in the mission, that they were going to receive the land and water from His Majesty, the King of Spain, who expected them to live in the new mission. The routine of mission life was then explained to them, as were their rights and duties. Captain Valdez now invited those present to go with him to select a site for the mission establishment.

---

5 Espinosa, Vida del P. Margil, (El peregrino septentrional atlante; delineado en la exemplarissima vida del venerable padre F. Antonio Margil de Jesus.... escribelo Fr. Isidro Felis Espinosa), Mexico, 1737.

The Spanish, followed by the Indians, made their way along the river until they reached a spot which seemed suitable for the construction of an irrigation ditch. A few huts already built marked the site chosen for the new mission. The group then walked along the route of the proposed acequia (ditch). Captain Valdez explains further the site of the ceremony:

> And seeing how all the fields were covered with grass, heavy timber, and firewood, with the river close at hand affording good watering places for sheep, goats, cattle, and horses; and everybody having agreed that the best location for the church of the new pueblo was on an elevated, spacious, and very level plain just traversed, I asked all those who were accompanying me how many leagues it was from here to the mission of San Antonio de Valero and all answered by saying that it was a little more than three leagues. Knowing this to be true, I alighted from my horse and called Captain Lorenzo Pérez, who in the presence of the missionaries and all those present, explained to the Indians all the requisites for the act of possession. Having listened to everything, the Indian chiefs declared that they have desired and do desire to be given land and water in order to live as Christians; that they will work to build an irrigation ditch and will cultivate the soil; that they will teach their children to do these things; that they wish to live according to the law of God; that they and their children will always obey the missionary fathers; and that they will observe and cause to be observed whatever they, the Padres, order for the service of God.[6]

The Indian chiefs were then taken by the hand and led over the fields. Grass was pulled, rocks and dirt were scattered over the land, branches of trees were cut, and other things were done in evidence of ownership. Captain Valdez then gave them possession, in the name of His Majesty and the governor, of all the lands necessary for the mission, and the right to irrigate by drawing water from the river, as well as the use of the woods and timber. The site was chosen on which to build the pueblo; and the sites of the church, cemetery, hospital, jail, and the plaza mayor (public square) were marked. The houses, of uniform width, were to be arranged along streets. The Indians were instructed to build their own houses and furniture under the direction of the padres; and they were to be allowed to raise chickens and other yard animals. After these instructions, a governor of the pueblo was appointed, as were an alcalde and regidores and rurales. Fathers Miguel Duran de Zara and Agustín Patrón were then left in charge of the mission by Father Margil; and a copy of the act of foundation and possession was ordered sent to the governor of Coahuila to be forwarded to the viceroy.

The San Antonio Missions between 1720 and 1750.

In 1720, the San Antonio missions were prospering and progressing, though the civil settlement of Bexar, with a population of about 200, amounted to little as yet; which a presidio consisting only one poorly constructed adobe building, thatched with reed, and a number of grass huts, with a garrison of 24 men commanded by Nicolas Flores y Valdez, captain of San Antonio de Bejar. The governor of Texas, Don Fernando

---

6. C. E. Castañeda, Our Catholic Heritage in Texas, II: 120-139 (Austin, 1936).

[illegible] de Alvear, resided at the Texas capital, Los Adaes, which is now in Louisiana. [illegible] Mission San Jose had been completed, under the direction of Fr. Miguel [illegible] de Muro; the granary was filled from the productive mission farm, and supplies [illegible] were sent from San Jose to the relief of La Bahia. The entire settlement of San Antonio was troubled by Apache raids, concerned particularly with horse-stealing.

In the spring of 1731, three missions in east Texas, upon the abolition of the presidio of Dolores (Tejas), were transferred to the vicinity of San Antonio de Bexar, under the names of La Purisima Concepcion, San Juan Capistrano, and San Francisco de Espada. In that same year, construction of a church at San Jose y San Miguel de Aguayo was completed on the day of formal establishment nearby of these other three missions.

In 1736, the number of soldiers assigned as mission guards at San Antonio de Bexar and San Jose was reduced from three each to one apiece.

An epidemic of smallpox (or measles?) in 1739 cut the Indian populations of the San Antonio missions approximately in half, reducing that of San Jose especially, from [illegible] hundreds to only 193. By the close of 1740, San Jose was back up to 350.

By 1745, when Father F. C. Ortiz made an inspection of the four Franciscan missions at San Antonio, they had baptized a total of 6,430 Indians and had administered the Holy Sacrament at 1,590 deaths. At that time, 855 Indians were living at these four missions. San Jose had baptized 1,201 souls between 1720 and 1745.

In 1745, there were 350 Indians at San Jose -- 113 men, 76 women, 92 children. There was a fine large church built of stone and mortar, with bells in the tower and with two chapels at either end of the transept, furnished with statues and vestments. Governor Barrios also describes in 1745 the friary, with a single second-story room, the soldiers' quarters, the Indians' quarters, the shops, and the sugar-cane mill; the ditch and pools, and bake ovens in the plaza alongside the enclosing Indians' quarters; the livestock and fields appertaining to the mission.

In 1762, the Indian neophytes of San Jose numbered over 500; the mission owned more than 2,000 cattle and harvested annually a thousand bushels of corn. Crops listed by Solis in 1768 include corn, beans, lentils, "vegetables," chili, melons, [illegible] sugar-cane, peach-trees. A lime and brick kiln had been built, and a [illegible] shop added to the mission workshops. The sugar-mill is mentioned again by Solis. Only in 1809 is a wheat mill referred to instead.

The stone church of San Juan Capistrano was built between 1731 and 1756. In [illegible], construction of a fine new church was begun at San Jose. The former church had been pulled down to construct a new and better one, whose cornerstone had been laid in the year of Solis' report. An arched hall that led from this former church to the friary had been walled in for temporary use as a church, being large enough for the purpose. The new church of San Jose, nearly finished in 1777 when seen and described by Morfi,[7] was complete by or before 1781 and dedicated in 1768.

---

[7] Fr. Juan Agustin Morfi, History of Texas, 1673-1779, transl. and annot. by [illegible] Castaneda, Quivira Soc. Publications, VI, Parts I and II, Albuquerque, 1935, I: 92-98.

Decline and Secularization.

From around 1760 onward, the San Antonio missions declined in activity and importance; and they were secularized in 1794. San Jose Mission had ministered in 1760 to 1,000 Indians of several Coahuiltecan tribes; but it had a population of only 100 by the time it was secularized. The drop was even sharper at other missions -- notably San Juan Capistrano, which had 215 Indians in 1758, 200 in the 1760's, and only 27 in 1792.

The cause of the decline of the San Antonio missions can be traced to a number of factors. New laws, stipulating that all unbranded cattle were the property of the king, took away much of the wealth of the padres, who controlled large herds of unbranded cattle. The natives, disinclined to labor, had originally been attracted to the missions because of the material advantages which they found there. When the means of easy subsistence was taken away, they departed. Comanche and Apache depredations increased. The government relaxed somewhat its activities in Texas after the acquisition of Louisiana in 1763, and the colony in east Texas was abandoned in 1773. A specific reason for the secularization of Mission San Antonio de Valero was to provide lands for settlers from Los Adaes who had been brought west to San Antonio upon the abandonment of east Texas.

The secularization of the San Antonio missions, that is, their transfer from the regular or monastic clergy to the secular or diocesan clergy, with subsequent division of the mission property among the remaining Indians, was a normal procedure in Spanish America. The missions never were intended to be permanent institutions. Once their task of Christianizing and civilizing the Indians on the frontier was over, the missionaries were supposed to turn their charges over to parish priests. Moving on to new frontiers, their task was to establish new missions among heathen peoples.

The first of the San Antonio missions to be secularized was San Antonio de Valero, which was changed to a parish church in 1793, after delays following the original order of 1779. The tribes hitherto ministered to there were now assigned to Concepcion and San Jose. The mission quadrangle was occupied by a military organization called the Compania Volante de San Carlos de Parras, and the families of the soldiers formed a settlement there. This settlement became known as the Pueblo del Alamo. By an act of February 23, 1793, eleven grants were made to the mission Indians. Other grants were made to families which had earlier been transported from Los Adaes. The final act of secularization was accomplished on August 28, 1793, when the records of the mission were transferred to the archives of the San Fernando Church.

The secularization of the other Texas missions was inadvertently hastened by the proposal in 1790 of the new head of the College of Zacatecas, Fr. Manuel Vega, that new additional missions be made possible by reorganization of the existing ones at San Antonio. On April 10, 1794, Don Pedro de Nava, the commandant-general of the interior provinces of New Spain, directed that all missions which had been established for ten years were to be secularized. On June 25, 1794, Don Manuel Munoz ordered the secularization of the four remaining San Antonio missions in conformity with this order. Inventories of the missions were taken, and by the end of July 1794, missions San Francisco de la Espada, San Juan Capistrano, San Jose y San Miguel de Aguayo, and San Francisco Concepcion had been formally secularized. Each "mission" was thereafter an

ian pueblo which elected its own native governor and alcalde. Upon secularization San Jose, on July 15, 1794, the mission lands, livestock, tools, and other equipment property were divided among the Indians. They were also given the granary -- "a ne building 40 varas long and 5 wide, with a tiled roof and two doors." There were o sentinels at this time "the carpenter shop with its triple-arch corredor, a work- p, and 71 dwellings. Six of the latter were in ruins but the others were in fairly d condition. Most of them had doors and windows."[8] At the time, the Indian neo- tes numbered 87 men, 86 women, 11 boys, 14 girls, plus 15 recent arrivals not yet trusted.

Some of the missions continued in a more or less precarious manner, into the nine- nth century. In 1793, four Franciscans were still taking care of the uninstructed ians of the four missions. The missionaries at San Francisco de la Espada contin- to live there for a time, because of the lack of diocesan clergy; but by 1807, San e, San Juan, and Concepcion were abandoned, except for occasional brief intervals of idence by lay priests. A hospital was installed in San Antonio de Valero in 1806.

At the end of 1793, there were 128 neophytes at San Jose, about 140 in the other r San Antonio missions together; the population of the villa and presidio of Bexar 1,340, including 71 slaves (presumably negroes). Of the total of 2,419 at Bexar, Goliad and Nacogdoches, the three centers of settlement of Spanish Texas, 1,377 were ssed as Spaniards, 677 as Indians, 183 as mestizos, and 182 as mulattos, plus 36 ves. In 1793, incidentally, there were 31 foreigners in San Antonio (and 3 in La ia and 56 in Nacogdoches) -- predominantly French, of course, but already including ew Englishmen or Anglo-Americans.

In 1796, there were 189 Indians at San Jose, 143 altogether at the other four mis- ns, but the population of the villa and presidio was only 975. There were six mis- naries and one secular priest (for San Antonio de Valero). In 1798, there were 114 ians at San Jose; in December 1799, 150; in 1800, 144; in 1804, only 80 (this prob- y means adult males only; see below), with 10 to 15 at each of the other three mis- ns (Valero having been secularized). In 1809, the population of San Jose included Indian men and 26 Indian women; 9 civilian Spaniards and 6 Spanish women. Around s time, in 1810, the civil population of Bexar was still only 1,700. In 1814, there e about 30 Indians, about 30 Spaniards, and one priest living at San Jose.

"By the beginning of the nineteenth century, dilapidated missions, a few presidios, wo settlements, and two roads were the memorials of Spain't early imperial enter- ise in this primeval kingdom....Texas was not a flourishing province, and hence it not an effective guardian for Spanish dominions. Suddenly recalled in 1809 to its ficult task of a buffer province, it once more guarded the 'precious dominions' of Spanish monarch in North America....Texas, 'the key to all New Spain,'....became particular objective for the propaganda of liberty....Texas stood between two revo- tionary fires. In September, 1810, revolution had broken out simultaneously in Mexico Florida....[In April 1813] The strike for liberty had won. The capital of Texas, er which the red and gold flag of His Spanish Majesty had floated for almost a cen- y, now displayed the green flag of the Texas Republic, and San Antonio de Bexar be- e the birthplace of the first declaration of Texas independence....In one stroke [in Bolivia, August 1] Arredondo had felled the Texas Republic....By the middle of tember [1813], bloody retribution had crushed rebellion."[9]

---

8. H. Bancroft, The Mexican Nations in Texas, 1536 (Austin, 1928).

9. Julia K. Garrett, Green Flag Over Texas, New York and Dallas, 1939.

The Period of Mexican and Texas Independence, 1821-1845.

An Act of 1823, by the government of Mexico, affirmed the local secularization [illegible] and the Spanish decree of 1813 on the subject. In 1827, mission lands were [illegible] up.

In December 1832, an appraisal of the remaining buildings of San José Mission was [illegible] at the direction of the Jefe Político of the province of Texas. This document refers mainly to ruined walls and roofless rooms, estimated in terms of portions of [illegible]; doors, and barred windows, roofs of useless wood; but also a "new tallow hut" mentioned. The names of occupants of half-a-dozen rooms along the west side are given. The granary is described ("a vaulted room with the name of church,...with 7 grasses on the outside"), but the church, still under clerical jurisdiction, is only [illegible] mentioned.[1]

Two of the San Antonio missions were scenes of fights in the Texas Revolution. The famous battle of the Alamo (February-March 1836) was preceded, during the Texan occupation of San Antonio, by a sharp encounter on October 27, 1835, at Concepción between Mexican troops and a detachment of Texans (led by Fannin, the commander at Goliad shortly after, and Bowie, who fell at the Alamo), while Stephen F. Austin with other Texas volunteers was encamped at San Francisco de la Espada and while the Alamo (San Antonio de Valero) was the headquarters of the Mexican garrison under General [illegible]. After the surrender of San Antonio to the Texans on December 11, 1835, General [illegible] on December 2, moved his headquarters to San José Mission to begin the march of [illegible] 1,100 men to the Rio Grande.

During the period of the Republic of Texas, ecclesiastical relations with Mexico were broken off entirely. Father Timon of St. Louis arrived in 1839 to bring order to religious affairs in San Antonio. The appointment of Father Jean-Marie Odin as Vice-Prefect Apostolic brought new energy to the old missions. Father Odin caused the churches of San José and San Francisco de la Espada to be repaired so that Father Calvo, the pastor of San Fernando, could hold occasional services in them. The rest of the buildings, however, were allowed to fall further into ruins.

The most important event for the San Antonio missions during the republican period was the Act of January 13, 1841, which was passed by the Texas Congress. This act provided that the churches of Concepción, San José, San Juan, and Espada, "with their outbuildings and lots, if any belonging to them, be, and hereby are acknowledged and declared the property of the present titular pastor of the Roman Catholic Church in the Republic of Texas, and his successors in office, in trust forever for the use and benefit of the congregation residing near the same, or who may hereafter reside near the same, for religious purposes and purposes of education, and none other; provided, that nothing herein contained shall be construed as to give title to any land except the lots upon which the churches are situated, which shall not exceed fifteen acres." (Gammel's Laws of Texas, II,492.)

---

1. Manuel Vásquez and Miguel Arciniega, "Description of the Buildings at San José Mission, December 31, 1832" (document stated to be "in Spanish archives of the General Land Office"; unsigned typescript translation in English - Three files, National Park Service, Santa Fe, New Mexico.)

San Jose in the Second Half of the Nineteenth Century.

The Benedictine fathers of the archabbey of St. Vincent in Pennsylvania established a priory and seminary at the mission in 1859, at the invitation of Bishop Odin.

Although the old granary and some of the adjoining property at San Jose had come to the possession of the Sulser family after secularization, and the County of Bexar claimed title to the mission compound and walls, title of the Catholic Church to the stone building and surrounding property had been acknowledged by the act of January 14, 1861.

The Benedictines repaired much of the church and rebuilt many of the upper arches of the monastery in "Gothic" style — pointed — and with red brick, fired in their own kiln. The diocesan clergy took charge once more.

The abbot of St. Vincent's is said to have spent $15,000 on San Jose Mission in 1869-71, but the work was interrupted by the outbreak of the Civil War — "The Benedictines still remained in Texas for some time, but gradually left, the last one, Father Bernard, on December 13, 1881."[1]

In December 1868, the dome and roof of the church, and a large part of the north wall, undermined by treasure-hunters, fell during a storm. (In certain of the secondary sources, it is stated that only the north wall was lost in 1868 and that the dome collapsed in 1874.)

San Jose Mission in the Twentieth Century.

As early as 1913, the late Archbishop Shaw and his Chancellor, the late Monsignor J. M. Buse, began a program of restoration and recovery of the mission property. Through the generosity of Mrs. H. E. Brought, Sr., and others, extensive repairs were made on the old church, including restoration of the dome, partial rebuilding of the north wall, and restoration of the choirloft and the round tower.

In the spring of 1920, most of the bell-tower collapsed, and with it the round tower fell again. The fallen portions were rebuilt with great care and skill, including restoration of the spiral stairway with the original wooden blocks.

In January 1924, Archbishop Drossaerts assigned the task of further restoration to Father Garriga, now Bishop of Corpus Christi. By 1925, much of the work was accomplished; but, because of lack of funds, the work was stopped until October 1926. Finally, under the direction of Father Alois J. Berkovsky, the work was finished. On April 18, 1937, San Jose church was rededicated for religious services.

A new Franciscan friary was built in 1931-1933 adjoining San Jose, and, unfortunately, slightly overlapping the northeast corner of the mission quadrangle.

Notable work was done by the San Antonio Conservation Society and the County of Bexar in preserving and restoring other parts of the mission. The Conservation Society, having bought the old granary from the descendants of Pedro Sulser in 1930, began

---

[1] Father Parisot, 1897, quoted and discussed by Father Gilbert, Letter of January 24, 1949.

toring the granary, the old soldiers' and Indians quarters, and the prefecture. this work, done under the direction of Mrs. Lane Taylor, President of the Society, Harvey P. Smith, San Antonio architect, the mission took on some of its former ect. Repairs were accomplished on the church, the granary, the prefecture, the losing Indian quarters and gates, and the old mill. Financial contributions were ermously made for this work by the Texas Centennial Board, the National Society of lonial Dames of America, and Mr. Robert Gunther, in addition to Federal funds lotted for relief labor sponsored by the County of Bexar.

The first work with relief labor was undertaken for the Conservation Society and olved the restoration of the granary with local relief labor in 1933-34. With the ing of CWA, 300 or 400 men were made available for work on the mission property as hole, and this approximate number was continued under FERA up to about May 1935. county, the Conservation Society, and the Church furnished the materials for the k, and the relief agencies furnished the labor. Approval of projects was made ier by the prospect of the approaching Texas Centennial for 1936.

During the time that work had been going on, the fallen wall of the church had en restored, the roof replaced, the pillars supporting the roof strengthened with inforced concrete, and considerable work done toward the restoration of the dome. granary was completed. While this project was progressing, and in fact prior to , archeological work had revealed the foundations of mission walls which had been known for decades. Foundations of certain other structures were also uncovered in plaza. Other excavations revealed the remains of the old mill, and the acequia ich flowed past the mission. Accordingly, plans were made to reconstruct what had been the mission walls. In 1934-35, the prefecture's and soldiers' quarters were tored from the ground up, and the Indians' quarters along the walls practically pletely restored; the southeast and northwest gates were also reconstructed, and nting was done; the old mill was restored.

In March 1941, the Most Reverend Robert E. Lucey became Archbishop of San tonio. One of his first official acts was to enter into a cooperative agreement on y 5, 1941, with the United States Government and the state of Texas, whereby the ire San Jose Mission property became a National Historic Site. This designation, ich possible by the transfer of the property of the Conservation Society and the nty of Bexar, to the state of Texas, culminated many years of effort on the part of izens of San Antonio to bring national recognition to this famous mission.

Bibliography

[illegible], E. T., Texas in the Middle Eighteenth Century, University of California Publications in History 3, Berkeley, 1915.

[illegible], C. E., Our Catholic Heritage in Texas, Vols. 1-7, Austin, 1936-58.

See ward, below, second item.

[illegible], Fr., San Antonio de Bexar, 1790.

[illegible], F. X., El Peregrino Septentrional Atlante: delineado en la esclarecida vida del Venerable Padre F. Antonio Margil de Jesus...., Mexico, 1737.

[illegible], Rev. H. J., Letters of September 30, 1918, and January 2, 1919.

[illegible], Ethel V., San Jose, Queen of the Missions, San Antonio, 1942.

[illegible], Wm. E., "Historical Report on San Jose Mission" in Lee, 1933.

[illegible], Ronald F., "Report on....San Jose Mission," National Park Service (typescript), November 14, 1935.

[illegible], Juan Agustin, Viaje de Indias y Diario del Nuevo Mexico (con una introduccion bibliografica y anotaciones por Vito Alessio Robles), Mexico, 1935.

History of Texas, 1673-1779, transl. and ed. by Carlos Eduardo Castaneda, Quivira Society Publications, Vol. VI, Parts I and II, Albuquerque, 1938.

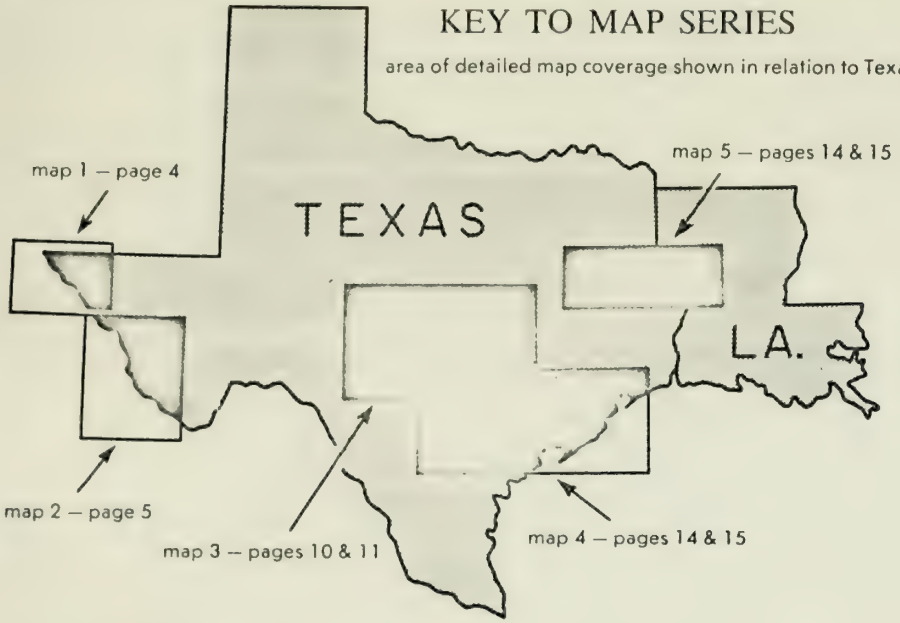
[illegible], Manuel, and Arciniega, Miguel, Description of the buildings at San Jose Mission, December 31, 1863 (document stated to be "in Spanish archives of the General Land Office"; typescript of translation in Region Three files, National Park Service, Santa Fe, New Mexico.

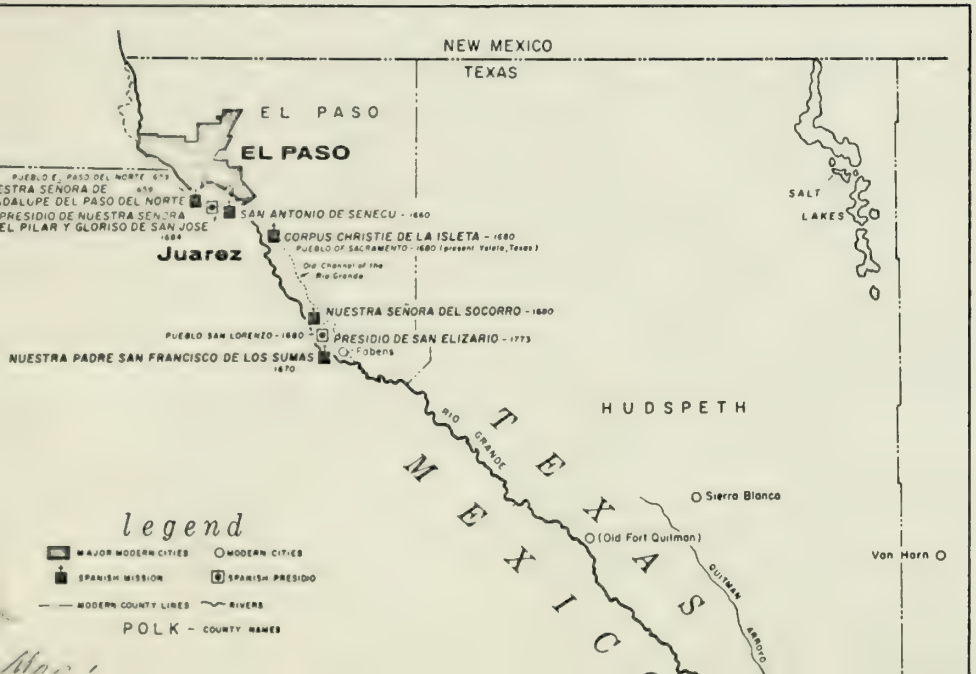
[illegible], Rev. P. F., History of the Catholic Church in the Diocese of San Antonio, 1897.

[illegible], Harvey P., Memento San Antonio, 1936.

KEY TO MAP SERIES

area of detailed map coverage shown in relation to Texas





Spain, New Biscay & New Mexico

IN THE 17th CENTURY

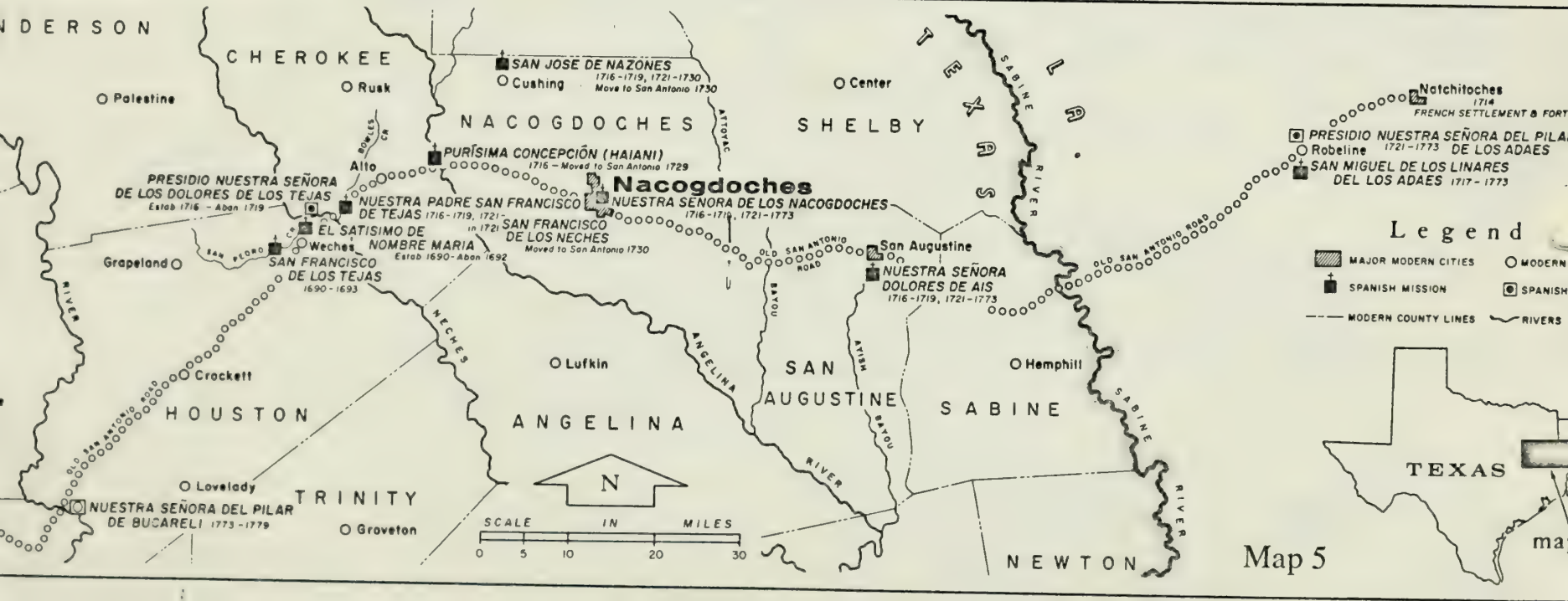
ING MAJOR ROUTES FROM MEXICO TO THE NORTH

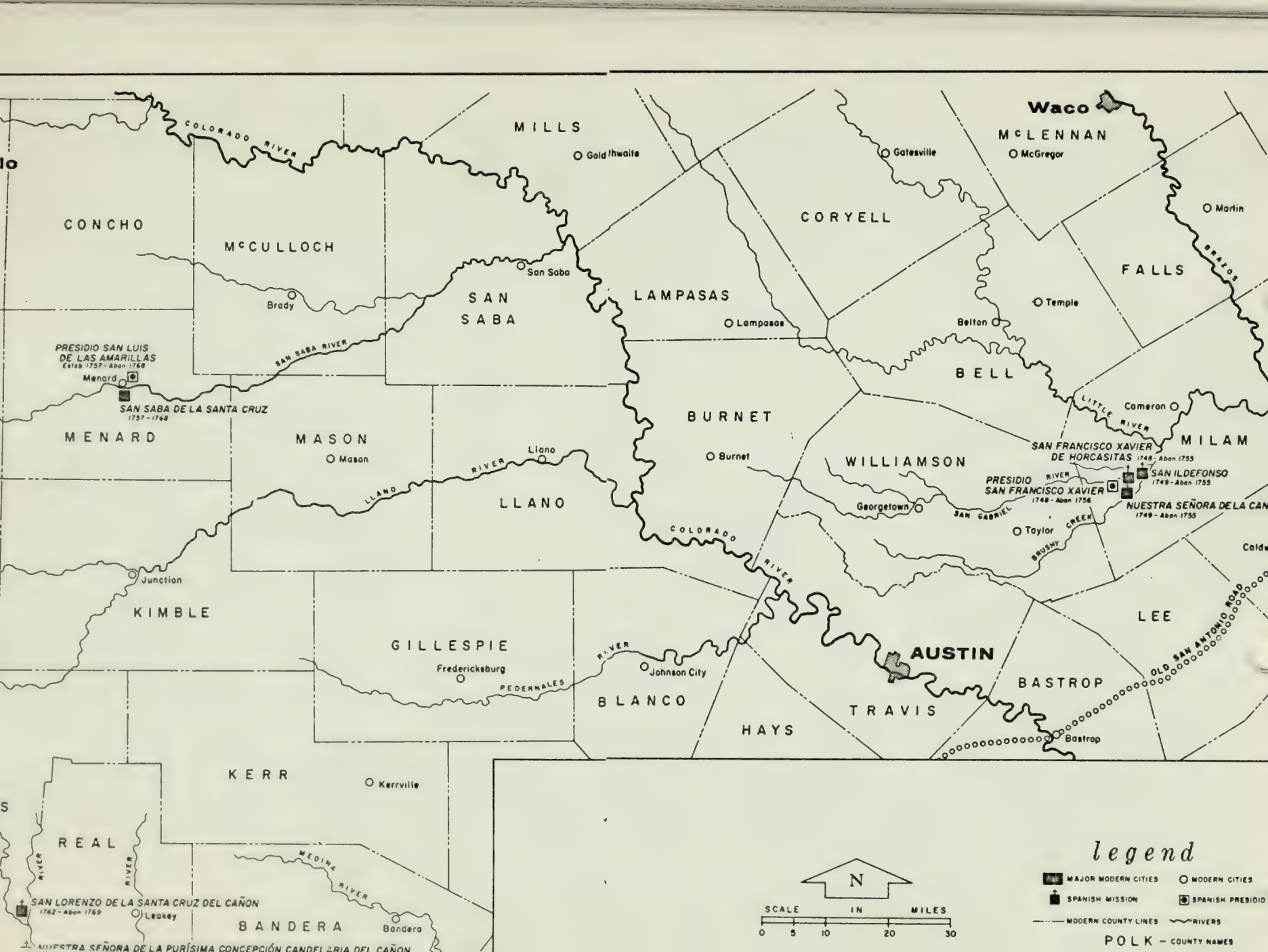
AND LOCATIONS OF

Franciscan Missions

IN THE WESTERN PUEBLOS

SAN JOSE Y SAN MIGUEL DE AGUAYO 1720 – Secularized 1794
SAN JUAN CAPISTRANO 1731 – Secularized 1794
SAN FRANCISCO DE ESPADA 1731 – Secularized 1794
GONZALES
LAVACA
WILSON
DEWITT
JACKSON
WHARTON
BRAZORIA
GALVESTON
Yoakum
Wharton
El Campo
Texas City
Angleton
Lake Jackson
Freeport
Bay City
Edna
Cuero
Yorktown
Karnes City
Kenedy
Pleasanton
ARROYO DEL CÍBOLO 1771–1781
KARNES
MATAGORDA
VICTORIA
NUESTRA SEÑORA ESPÍRITU SANTO DE ZUÑIGA (LA BAHÍA) 1726–1749
PRESIDIO NUESTRA SEÑORA DE LORETO 1726–1749
NUESTRA SEÑORA ESPÍRITU SANTO DE ZUÑIGA (LA BAHÍA) 1722–1726
PRESIDIO NUESTRA SEÑORA DE LORETO 1721–1726
FORT ST LOUIS LaSalle 1685–1688
PRESIDIO NUESTRA SEÑORA DE LORETO 1749
NUESTRA SEÑORA ESPÍRITU SANTO DE ZUÑIGA (LA BAHÍA) 1749 – Secularized 1830
NUESTRA SEÑORA DEL ROSARIO 1754 – Secularized 1831
Goliad
Port Lavaca
GOLIAD
NUESTRA SEÑORA DEL REFUGIO 1793–1794
CALHOUN
REFUGIO
BEE
Beeville
LIVE
Refugio
NUESTRA SEÑORA DEL REFUGIO 1794 – Secularized 1830
ARANSAS
Gulf of Mexico
TEXAS
HARRIS – COUNTY
SCALE IN
MAJOR MODERN CITIES
SPANISH MISSION
MODERN COUNTY LINES
Map 4


CHEROKEE
NACOGDOCHES
SHELBY
SAN AUGUSTINE
SABINE
HOUSTON
ANGELINA
TRINITY
NEWTON
Palestine
Rusk
Cushing
Center
Lufkin
Crockett
Lovelady
Groveton
Hemphill
San Augustine
Grapeland
Alto
Weches
SAN JOSE DE NAZONES 1716–1719, 1721–1730 Move to San Antonio 1730
PURÍSIMA CONCEPCIÓN (HAIANI) 1716 – Moved to San Antonio 1729
Nacogdoches
NUESTRA SEÑORA DE LOS NACOGDOCHES 1716–1719, 1721–1773
PRESIDIO NUESTRA SEÑORA DE LOS DOLORES DE LOS TEJAS Estab 1716 – Aban 1719
NUESTRA PADRE SAN FRANCISCO DE TEJAS 1716–1719, 1721–
EL SATISIMO DE NOMBRE MARIA Estab 1690–Aban 1692
SAN FRANCISCO DE LOS TEJAS 1690–1693
SAN FRANCISCO DE LOS NECHES in 1721 Moved to San Antonio 1730
NUESTRA SEÑORA DOLORES DE AIS 1716–1719, 1721–1773
NUESTRA SEÑORA DEL PILAR DE BUCARELI 1773–1779
Natchitoches 1714 FRENCH SETTLEMENT & FORT
PRESIDIO NUESTRA SEÑORA DEL PILA
Robeline 1721–1773 DE LOS ADAES
SAN MIGUEL DE LOS LINARES DEL LOS ADAES 1717–1773
OLD SAN ANTONIO ROAD
SABINE RIVER
NECHES RIVER
ANGELINA RIVER
BAYOU
TEXAS
Legend
MAJOR MODERN CITIES
SPANISH MISSION
MODERN COUNTY LINES
RIVERS
N
SCALE IN MILES
0 5 10 20 30
Map 5


COLORADO RIVER
MILLS
Goldthwaite
Gatesville
Waco
McLENNAN
McGregor
Martin
CONCHO
McCULLOCH
CORYELL
BRAZOS
San Saba
SAN SABA
LAMPASAS
FALLS
Brady
Lampasas
Temple
Belton
PRESIDIO SAN LUIS DE LAS AMARILLAS
Estab 1757 - Aban 1768
SAN SABA RIVER
Menard
BELL
SAN SABA DE LA SANTA CRUZ
1757 - 1768
BURNET
LITTLE RIVER
Cameron
MENARD
MASON
Mason
Llano
Burnet
WILLIAMSON
MILAM
SAN FRANCISCO XAVIER DE HORCASITAS
1748 - Aban 1755
SAN ILDEFONSO
1749 - Aban 1755
PRESIDIO SAN FRANCISCO XAVIER
1748 - Aban 1756
NUESTRA SEÑORA DE LA CAN
1749 - Aban 1755
LLANO RIVER
LLANO
Georgetown
SAN GABRIEL RIVER
Taylor
BRUSHY CREEK
COLORADO RIVER
Junction
KIMBLE
LEE
OLD SAN ANTONIO ROAD
GILLESPIE
Fredericksburg
Johnson City
PEDERNALES RIVER
AUSTIN
BASTROP
BLANCO
TRAVIS
HAYS
Bastrop
KERR
Kerrville
REAL
MEDINA RIVER
SAN LORENZO DE LA SANTA CRUZ DEL CAÑON
1762 - Aban 1769
Leakey
BANDERA
Bandera
NUESTRA SEÑORA DE LA PURÍSIMA CONCEPCIÓN CANDELARIA DEL CAÑON
N
SCALE IN MILES
0 5 10 20 30
legend
MAJOR MODERN CITIES
MODERN CITIES
SPANISH MISSION
SPANISH PRESIDIO
MODERN COUNTY LINES
RIVERS
POLK - COUNTY NAMES

TEXAS MISSIONS

From Bartlett's "Explorations and Incidents" Vol. I

(Pages 41 to 45)

ALAMO

One of the principal objects of interest to the stranger in San Antonio is the Alamo, memorable for its brave defence by Travis, Crockett, Bowie, and others, who only gave up the contest with their lives. The building was originally a mission. It is now occupied as a storehouse by the United States Quartermaster's Department, and retains but little of its former appearance. The principal doorway, ornamented in the Moorish style, remains tolerably perfect.

We saw in the County Clerk's office a large collection of old Spanish documents, which have been accumulating ever since the first settlement of the town. Doubtless their careful perusal by some persevering antiquary would develope many interesting facts connected with the early history of the country. It is to be hoped, that measures will ere long be taken by the enterprising State to which they relate to rescue them from oblivion and decay, and cause them to be collated and given to the world. The Northern States have spent immense sums in sending agents to England, France, and Holland, to procure similar papers from the State archives to illustrate their Colonial history. Texas possesses in her own record offices voluminous documents of equal value, in which the scholar and historian of every State feels an interest second only to that of her own people.

Near the town and upon the banks of the San Antonio River are the remains of extensive mission establishments. We found time to pay a short visit to those of San Jose, San Juan, and Concepcion. There is another, La Espeda, which we did not visit.

A ride of about five miles through a mezquit country brought us to the mission of San Jose, situated upon the right bank of the river. This was the largest and wealthiest mission; and its buildings were constructed with greater display of art, and still remain in better preservation, than the others. Entering the inclosure formed by the granary and other out-buildings, we alighted in front of the main edifice or church. This is constructed of stone, and plastered. The principal doorway is surrounded by elaborate carving, which extends the whole length of the front, and includes

numerous figures, among which San Jose, the patron of the church, and the Virgin and Child are conspicuous. The material of this work has the appearance of stone; but we found on examination that it was a hard kind of stucco. The action of the weather has done much to destroy the figures; and the work of ruin has been assisted by the numerous military companies near here, who, finding in the hands and features of the statues convenient marks for rifle and pistol shots, did not fail to improve the opportunity for showing at the same time their skill in arms and their contempt for the Mexican belief. That portion of the front of the church not covered with carving, was ornamented with a sort of stenciling in colors, chiefly red and blue. But few traces of this have withstood the rain. The most perfect portion of the church is an oval window in the sacristy, which is surrounded with scrolls and wreath-work of exceeding grace and beauty.

The interior presents but little of interest. The dampness has destroyed the frescoes upon the walls, and the altar has been stripped of its decorations. It is now seldom used for religious purposes; as the Mexicans of the neighborhood are poor, and cannot often afford the fifty dollars charged by the San Antonio priests for officiating.

The convent in the rear of the church, as that portion of the building occupied by the fathers is called, remains in tolerable preservation, and is at present inhabited by an American who cultivated the adjoining lands. A fine view of the surrounding country may be had by ascending the tower, which is accomplished in part by means of a spiral staircase, and in part by a rude ladder, consisting of a stick of timber with notches cut in its sides. The plan of the building evidently included two towers; but only one of them was ever completed.

About two miles below San Jose, and upon the opposite side of the river, are the ruins of San Juan. This was never a building of much pretensions, and is in a more ruinous state than San Jose. The interior shows the remains of some exceedingly rude paintings; and we noticed that the earthen floor was broken up in several places where graves had recently been made.

It was late when we reached Concepcion, which is nearer the town than either of the other missions. The two towers and dome of the church make quite an imposing appearance when seen from a distance; but on approaching it, we found it not only desolated but, desecrated; The church portion being used as an inclosure for cattle, the filth from which covered the floor to the depth of a foot or more. Myriads

of bats flitted about, which chattered and screamed at our invasion of their territory;and we found nothering of interest within the church to repay us for encountering their disagreeable presence.

TUMACACORI NATL. MONUMENT
BOX 67
TUMACACORI, ARIZ. 85640